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FERDINAND FETTER, M.D.  
Assistant Professor of Clinical Medicine  
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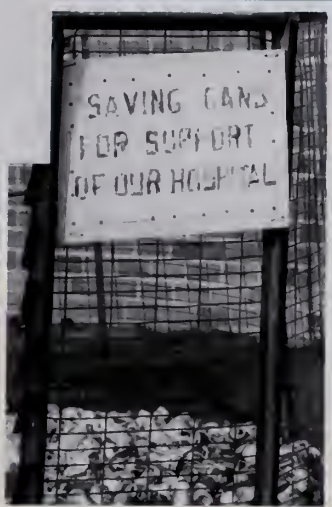
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JANUARY 1990

# MINNESOTA MEDICINE

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But the addition we are most excited about is Dr. Kathleen Ogle, coordinator of the new Methodist Hospital Bone Marrow Transplant Program. Dr. Ogle will perform autologous bone marrow transplants in the hospital's new bone marrow unit. The

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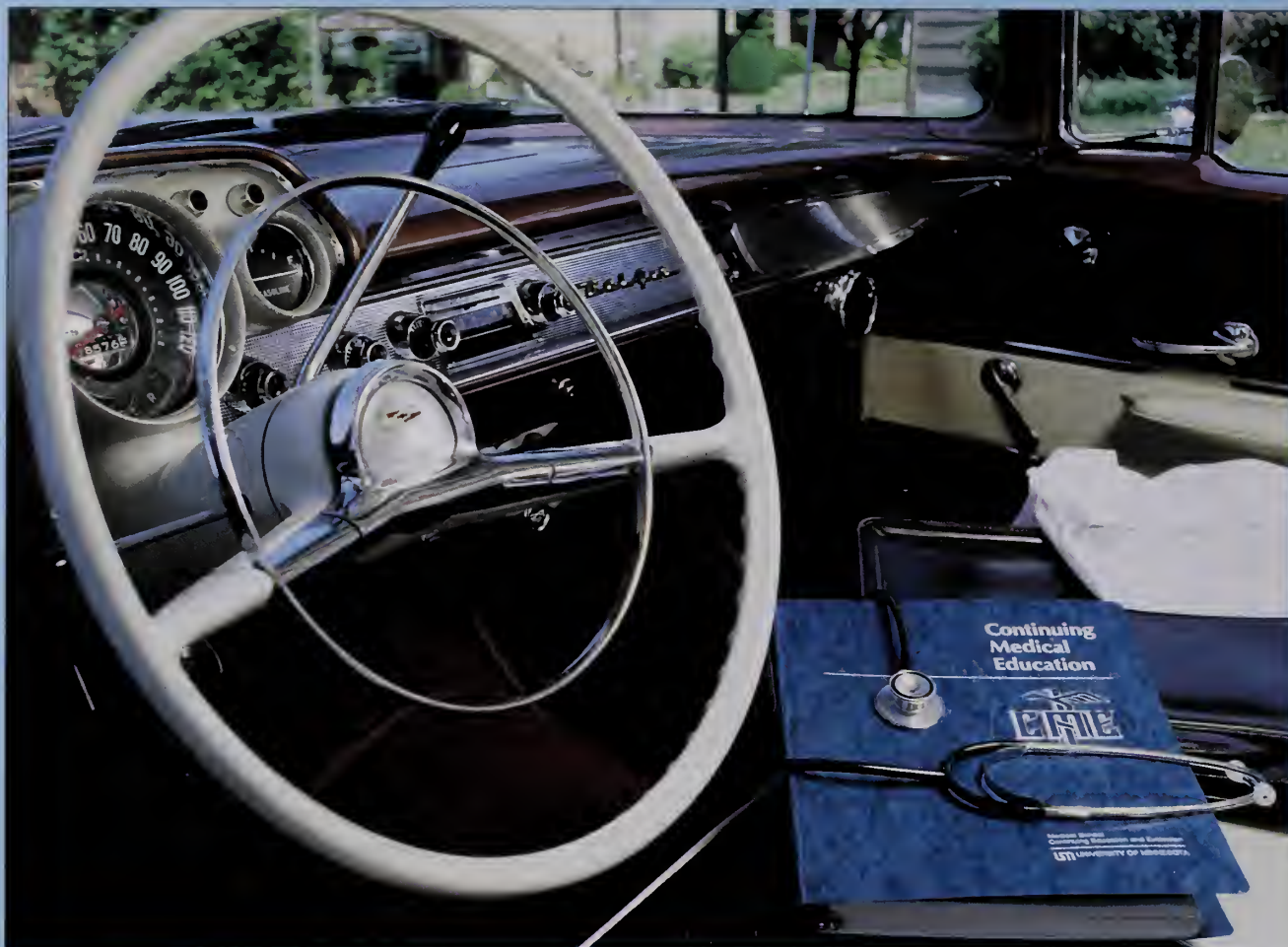
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## Cover Photo

**SMALL-TOWN HOSPITALS**, hit hard financially, appear to be increasingly in danger of closing. This month's issue explores the state of rural hospitals and what it is that makes these modest facilities extraordinary.

Shown on the cover is Comfrey, Minnesota's only full-time doctor, Matthew J. Rimas, M.D., examining patient Michael Jacobsma. The inset illustrates how the citizens of Comfrey are creatively supporting their eight-bed hospital — the state's smallest. Last year they raised hundreds of dollars by recycling cans.

Photos by Gail Mooney of North Plainfield, New Jersey.

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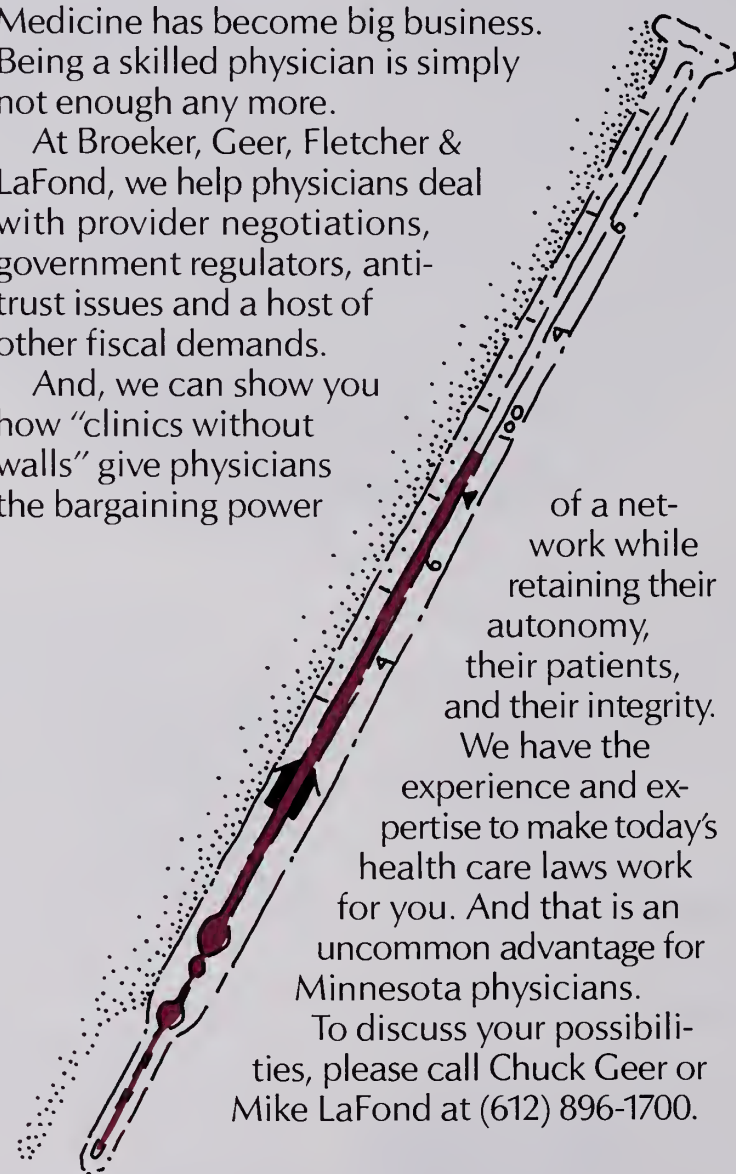


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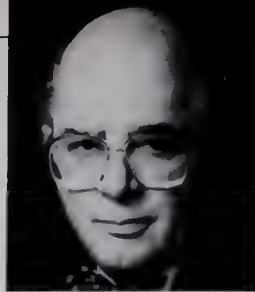
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## EDITOR'S NOTEBOOK

# A Letter from the Farm about Fairness

Northfield, Minnesota

### Dear Readers:

This letter started as an editorial. I was going to wax editorially about Medicare's inequities in pay between country doctors and city doctors, between surgical specialists and medical generalists, between rural hospitals and urban medical centers, and between physicians living on the coasts of the U.S. and the midsection of the country.

### Durenberger's Metaphor

I was going to swipe Senator David Durenberger's metaphor—that the Medicare payment terrain looks like two coastal mountain ranges, with peaks in Miami and New York in the Eastern range, and Los Angeles and San Francisco in the West, with deep inner valleys in the Midwest, South, and Southwest.

### Going to the Source

I planned to pound on the urban-rural inequities, and I decided to go to the source—doctors practicing in rural Minnesota.

► I ran across an article in *Smithsonian* magazine that mentioned Dr. Matthew Rimas, a solo practitioner in Comfrey, Minnesota, who was keeping a tiny eight-bed hospital afloat. After a few phone calls, I was able to corral Dr. Rimas for an interview.

► I sought out and interviewed Dr. Ray Christensen of Moose Lake, who has been a one-man gang in organizing hospitals, clinics, corporations, and medical schools to provide better health care for citizens of northeastern Minnesota.

### Down on the Farm

I even came down to my farm, eight miles west of Northfield, to talk to folks about access to health care. Fresh farm air, fresh country talk, and fresh manure have a way of clearing out your sinuses as they purify your thinking and fortify your philosophy.

### What Newspapers Say

To give my editorial a little meat, I skimmed through newspapers to find what the media were saying about rural hospitals. Here, to give you the flavor of what has been said, are a few headlines: "Rural hospitals face extinction: study says subsidies necessary to prevent closing" (*St. Paul Pioneer Press Dispatch*); "Rural areas face health care crisis; residents in rural areas of 32 states do not have adequate access to physicians" (*Washington Bureau, St. Paul Pioneer Press Dispatch*); "Smalls towns desperate to find a good doctor" (*Washington Post*); and "Rural hospital will close if doctor can't be found" (*St. Paul Pioneer Press Dispatch*). The bottom line? Rural America is rapidly losing hospitals, doctors, and access to care.

### Reading Official Documents

I read a report by the Minnesota Department of Health, "Access to Hospital Services in Rural Minnesota," summarized in this issue of *Minnesota Medicine* (see page 35). It says that 12 of Minnesota's hospitals are in precarious financial condition and that 19,000 Minnesotans in 14 counties have inadequate access to hospitals.

David Lee, from the Division of Health Care Finance at the Minne-

sota Hospital Association, sent me an update on the financial health of Minnesota's hospitals. According to his analysis, 20 percent of Minnesota's hospitals are "financially troubled," and another 10 percent are "financially distressed." He said negative cash flow was the best screen for hospitals in imminent danger of closing, and that all five that closed in 1987 and three in 1988 met this screen.

### Quotation Hunting

Finally, armed with indignation about the unfair treatment of rural hospitals by the government, I went hunting for an apt quotation about fairness.

You might like this one. When one of the Green Bay Packers was asked about Coach Vince Lombardi's fairness toward his players, and the fact that he treated every man the same, the player said, "He treats us all like dogs." The government, in its turn, has been treating rural hospitals, doctors, and patients like dogs since 1966, or at least it's been beating them into the ground with low payments while collecting equal Part B payment from all Medicare beneficiaries, urban and rural.

### Tragedy Intervenes

But that's as far as I got. I lost my inspiration when I learned of the death of two Twin Cities physicians and an X-ray technician in a light plane crash in rural Wisconsin.

A friend of mine, Dr. Henry Horecki, pilot of the plane and president of the Minnesota Chapter of the American Society of Internal Medicine, was one of the victims.

He, orthopedic surgeon Robert Merkow, and X-ray technician Bar-

bara Beattie were en route to a medical clinic in Shell Lake, Wisconsin, on November 14. No one knows what happened, but the plane probably iced up, plunged nose down into Shell Lake, flipped over, and sank.

### Life Isn't Fair

It didn't seem fair that Henry, who was 58, should die so young. After all, as a Polish boy of Jewish heritage, he had trekked barefoot across much of Poland and Russia and had eluded both the Germans and the Russians.

Henry was every inch the combative survivor. He attributed his survival gifts to his flair for languages. He once told me he could carry on a conversation in any language after being exposed to it for one month. As an internist in Minneapolis, he had his ups and downs, but he always found solace in his self-appointed role as a doctor for ethnically diverse Northeast

Minneapolis, where Henry always spoke to his patients in their native tongue.

Henry had his biases. He was not an admirer of HMOs. Like many Eastern European or Russian physician immigrants to whom I've talked, he saw HMOs as a thinly veiled form of government bureaucracy and thought they unnecessarily compromised the freedoms of both patients and physicians. In the last year or so, he said he refused to see HMO patients as a matter of principle. But it is understandable why he found "central planning," whether by government or health plans, a suspicious activity. In any event, I asked him once if he hated the managed care environment so much, why didn't he leave the Twin Cities? "Because," he said, "I'm through with running. I would rather stay and fight."

Besides, he was resilient, and he could always escape the troubles

of practice by flying his small plane over the wide open spaces of rural America. He liked flying his fellow physicians to remote regions of Minnesota and Wisconsin so they could provide specialty services. And he could always dream of his next project.

He fantasized of someday starting a European-like spa on Lake Superior, where patients could come to relax, unburden themselves of civilization's stresses, and thrive in an allergen-free environment.

The last time I saw him, Henry informed me he had a "really big project" in the works. He would tell me about it as soon as he could. He never was able to. That doesn't seem fair, to him or to me.

Richard L. Reece, M.D.



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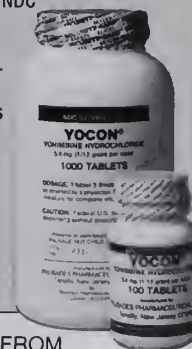
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1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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# Solo Doctor, Small Town, Tiny Hospital

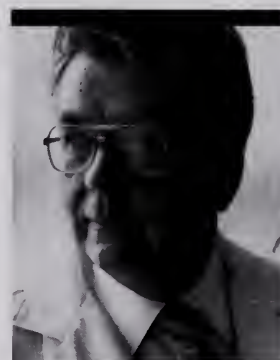
**REECE:** *Dr. Rimas, I'm talking to you because of an article I read in the September 1989 Smithsonian magazine. You are quoted in that article, entitled "In America's Small-town Hospitals, a Patient Isn't 'Just a Number,'" which is reprinted in this issue of Minnesota Medicine. The basic thrust of the article is that you can get excellent care in America's small towns—Comfrey, Minnesota, and elsewhere—and the people are personable. It was a flattering article about small-town physicians and small-town hospitals. Could you tell me about your background, where you trained, how you came to Comfrey?*

**RIMAS:** I am from Lithuania, which is still occupied by the Soviet Russians. In 1941 I started my medical studies in Kaunas, Lithuania. In 1944, when the Russians occupied Lithuania again, I escaped to Austria. I studied briefly at the University of Graz. In 1947 I was accepted at the University Medical School in Munich. There, I finished my studies, and I took my board exams in 1949. I then completed a postgraduate doctorate of medicine, and while interning in a Bavarian hospital, I met my wife, a Lithuanian nursing student. We were married in Munich and came to the United States that year. I arrived first in Connecticut. Then several weeks later I went to Philadelphia, where my wife's parents lived. While visiting there, I became ill with tuberculosis. I stayed briefly in a Philadelphia hospital, then I was sent to Whitehaven, a private sanatorium of Jefferson Medical College, located in the Pocono Mountains in west-

ern Pennsylvania.

**REECE:** *How long were you in the sanatorium?*

**RIMAS:** I was a patient there for about two and a half years, and my wife worked as a nurse. After I improved, I was part staff and part patient. I was doing paracenteses, pneumothoraxes, and fluoroscopies on patients. After I was dis-



**MATTHEW J. RIMAS, M.D.**

**Rimas to page 54**

*I have a soft spot in my heart for the subject of this interview, Dr. Matthew J. Rimas of Comfrey, Minnesota. It's hard to pinpoint the reasons why, but here goes.*

► *The first reason is that he is a man of pride. In the September 1989 Smithsonian magazine, I read a touching and appreciative article on America's small-town hospitals. That article, reprinted in this issue of Minnesota Medicine, quotes Dr. Rimas, Comfrey's only full-time doctor. Dr. Rimas' comments reflect his pride in the high level of care he gives.*

► *The second reason is that this is a man who deals one on one. The Smithsonian article piqued my curiosity. I phoned Dr. Rimas on two or three occasions. But setting up the interview was tough. Dr. Rimas was busy, and he was hard put to arrange a time slot. The people in Comfrey were depending on him. Besides, he didn't give interviews over the phone. He wanted to speak to his questioner face-to-face.*

► *The third reason is that I appreciate the power of economical language. As I spoke to Dr. Rimas, I was struck by the power of his brief and direct comments. This, I thought, is a man who knows who he is, what he represents, and how he deals with the world. For me, as an editor, writer, and physician, I appreciate someone who tells me exactly the way he sees it—without adornment or pretension.*

► *As the interview progressed, it became apparent that Dr. Rimas wasn't terribly impressed by the differences between small-town doctors and big-city doctors. We all put our pants on the same way, and, given the same equipment and a little help, we get the same results.*

*His attitude reminded me of the story of Saint Paul and Saint Peter. After a long day of saving souls, they stopped at an inn to sup and drink. After the meal, they threw dice to see who would pay. Saint Paul threw a four and a three. Saint Peter then tossed and rolled a seven and an eleven. Paul gave Peter a long and searching look and said: "Peter, old man, no miracles among friends, please." The fourth reason is that I, like Dr. Rimas, believe few miracles exist among physicians.*

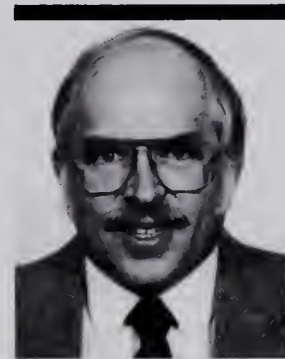


## Our Medical Man in Moose Lake

**REECE:** *Dr. Christensen, you've been a family practitioner in Moose Lake, Minnesota, for the last 17 years. In addition, you've been politically active in putting together emergency medical services in northeastern Minnesota, in founding the Northern Lakes Health Care Consortium, and in bringing rural health care issues to the attention of politicians in Minnesota and Washington, D.C.*

*Please describe your practice for us.*

**CHRISTENSEN:** Dr. Gregory Peterson and I founded Moose Lake's Gateway Family Health Clinic in 1972. For some time it was just the two of us. Dr. Peterson left the practice, but we now have four doctors, plus a fifth physician who will be with us for the next few months. He will be deciding



RAYMOND G. CHRISTENSEN, M.D.

*Dr. Eli Ginzberg, a health care economist from Columbia University, in 1977 wrote an unblinkingly realistic book about health care, The Limits of Health Reform: A Search for Realism. In it, Ginzberg has this to say about the difficulties of achieving complete health reform in a democracy:*

*"What ground is there for believing that a serious attempt to reform the health care system under the aegis of the federal government is necessary or will prove constructive? There are four main reasons for skepticism: three of every five dollars still originate from outside the government arena; the regional and area distribution of health resources is grossly uneven; most members of the medical profession prefer to live and work in large metropolitan communities; it will be difficult to assure future large inputs of new resources for the health care system. . . there is little prospect that any reform, even one well intentioned, designed, and implemented, can meet the expectations of its proponents: to assure access for all, improve quality, contain costs, and establish a single level of care for all Americans."*

*You can respond to these discouraging comments, which still hold true today, in two ways: 1) you can bemoan the inequities, say life isn't fair, and look for a magic government solution; or 2) you can roll up your sleeves, go to work, and try to narrow the differences.*

Our medical man from Moose Lake, Raymond G. Christensen, M.D., one of four full-time members of a general practice group, has chosen the second approach. Over the past five years, this 45-year-old family practitioner has set about narrowing the differences between urban and rural care. Regionally, he has helped organize a system of emergency care and helped establish a consortium of hospital administrators, physicians, and other health care professionals to strengthen the whole of the regional care system; in Minnesota, he has fought for higher levels of physician reimbursement for Medicaid patients; and in Washington, he has lobbied for legislation to narrow pay differences between specialists and primary care physicians and between rural and urban physicians. Dr. Christensen is a rural citizen who fights for the rights of his own kind and a country doctor who prefers to live and practice where he is needed most.

whether he's going to stay or not. The practice has grown, and our service area is fairly large. We have 20,000 charts, and we admit to Mercy Hospital in Moose Lake. I carry my courtesy privileges at Duluth hospitals, so I can order and utilize the services of the city hospitals, too.

**REECE:** *Do you have the classic rural family practice where you deliver babies, perform appendectomies, and handle minor trauma?*

**CHRISTENSEN:** It's all there. In a rural area, often one person is alone on call, so all of us still handle obstetrics. We do the standard treatments, and we take care of the emergency room, which is probably the hardest part of all, because it hits you with problems when you least expect them. We have a good family practice that offers the whole gamut of care from birth to death.

**REECE:** *You're not exactly isolated in Moose Lake. You're near Interstate 35 and just 45 miles from Duluth. What do you do when you're not practicing?*

*continued*



**CHRISTENSEN:** My day off during the week is one I try to give back to medicine in some way other than treating patients. I generally spend quite a bit of time in Duluth and some time in the Twin Cities working on rural health problems. The Northern Lakes Health Care Consortium has its headquarters in Duluth. I'm president of that organization. The Arrowhead EMS Association in northeastern Minnesota, which I chair, is also based in Duluth.

**REECE:** *What drives you? What makes you do all these things?*

**CHRISTENSEN:** I'm not sure I know. I grew up on a farm, and I've thought many times about what makes me the kind of physician I am. Maybe the feelings and attitudes of childhood carry me forth. I always wanted to be a rural doctor. Maintaining access for rural patients to the technology and all the fine things that medicine can provide is a responsibility we have as a profession. Maybe that's what's driving me now—the realization that quality and access to medicine could be jeopardized in rural areas.

## A Rural Trauma Care System

**REECE:** *Will you describe your involvement in setting up a trauma and emergency care system in northeastern Minnesota?*

**CHRISTENSEN:** We really didn't have a trauma system in northeastern Minnesota until the early 1980s, when government money became available. At that time, the Arrowhead Regional Development Corporation in Duluth began putting together a trauma system for northeastern Minnesota. I was a member and later chair of a clinical subcommittee of physicians, administrators, ambulance crews, and other health care personnel that established a regional trauma center, areawide trauma centers, and local trauma centers throughout northeastern Minnesota and developed criteria to ensure uniform quality throughout the region.

The Arrowhead Regional Development Corporation originally put

this together, but as the monies ran out, the corporation backed out. The Arrowhead Regional EMS Association has continued its involvement.

## The Northern Lakes Health Care Consortium

**REECE:** *And at the same time you helped found the Northern Lakes Health Care Consortium?*

**CHRISTENSEN:** At the time the Arrowhead Regional Development Corporation stepped out of the picture, we became concerned by several things that were happening in medicine. Because of the preponderance and growth of HMOs in the Twin Cities, hospitals and clinics from the Cities came looking for health care referrals and began establishing practices in northeastern Minnesota. We were worried that expansion of Twin Cities health care systems into rural Minnesota would threaten the stability of our health care system.

At the same time, there was a lot of pressure on small clinics to become part of larger clinics. For some hospitals, the additional pressure of DRGs made their survival questionable. We saw some real serious threats to the integrity of the system. We recognized that local organizations had to work more efficiently, increase their revenues, and change their missions. We began asking questions like: Is there really a threat to small physician practices? Do we really need to belong to larger practices? Are large clinics out to buy us out? Can we survive?

All those questions came together as a catalyst, and we formed this unique organization—the Northern Lakes Health Care Consortium—that includes all the hospitals in northeastern Minnesota, many of the rural physicians, and some urban physicians in Duluth.

**REECE:** *So in part the purpose of the Northern Lakes Health Care Consortium was defensive, to protect the integrity of the northeastern Minnesota health care system with your own network of surgeons, hos-*

*pitals, and support services.*

**CHRISTENSEN:** That was our objective, but we considered our work proactive, not defensive. We knew we had a strong medical network in northeastern Minnesota, but we needed to use it more efficiently and effectively.

**REECE:** *As part of the Northern Lakes Health Care Consortium you're a member of a transition team that travels around advising small hospitals how to adapt to the present and future. Do you see many small rural hospitals either closing or changing their stripes? Should hospitals, for example, convert into nursing homes or other kinds of units? Should they make transitions to other forms of care?*

**CHRISTENSEN:** The answer is yes. We all know there are hospitals that can close without jeopardizing access to quality care. In some other areas, rural hospitals are close enough to consolidate. But in northeastern Minnesota there are very few rural hospitals close to each other.

We provide expertise to the small hospitals. The hospital medical staff, the administrative staff, and people from the community sit down and determine how much hospital service they need, what kind of a health care facility they would like to have, how they would like to have it run, and how else they can use the building. Can the hospital laundry do laundry for the community? Can the hospital kitchen also serve the school? There are many ways to diversify to keep the hospital open.

And finally, how much is the local community willing to pay in taxes to keep its hospital? The communities have a strong sense of ownership and need for hospitals as well as churches and schools. Those are the real guts of a small rural community. It's important that all of us work with our local people and tell them what is going on in the hospital and why it's important to maintain those hospitals.

The consortium also is involved in preparing hospitals and their communities for the possibility of

closures. Hospital closures need to be worked through very carefully with the community. We have had one hospital close, and that could happen in other northeastern Minnesota communities. Time will tell.

## A Recruitment Crisis

**REECE:** *Do you believe that a genuine rural health care crisis exists?*

**CHRISTENSEN:** I really do. Look at the aging population of rural physicians; it often takes one and a half to two new physicians to replace an older physician. Look at the number of physicians going into administration. Look at the decrease in the number of family practice residents available to us and the diminishing number of medical students who go into rural family practice.

**REECE:** *Are the new graduates trained to function in your environment delivering babies, performing an occasional C-section, doing*

*appendectomies, and setting fractures?*

**CHRISTENSEN:** We have some real concerns about that. I personally feel that all residents, regardless of whether they want to be pathologists or neurosurgeons or family physicians, should take a rural rotation. Medical educators resist that kind of talk, but such an experience helps us all have a better understanding of what it's like out here. If family practice residents never become comfortable performing needed rural procedures, they're not likely to have any confidence in doing them. Yet, on occasion, you have to do them. I feel comfortable with people from the Duluth family practice program. They're getting the background they need. But as we talk to young physicians from other programs, they are concerned about their ability to handle some things they'll encounter in rural practice.

Also, we're not getting enough

rural students into medicine. I'm not talking just about physicians; we have to look at the rest of the health professions, too, including nursing. We need to encourage our intelligent high school rural youth to consider the health care professions. Rural children are our best source of future rural physicians.

## A Reimbursement Crisis

**REECE:** *One important element of this health care crisis you haven't mentioned is the dramatically lower federal and state reimbursement for Medicare and Medicaid funds for rural physicians and hospitals.*

**CHRISTENSEN:** That is a major part of the problem. Since the inception of Medicare, the federal government has reimbursed Minnesota's rural hospitals and physicians at a rate below the national average. In 1966 the differential rates may have been OK, but now hospitals and physicians have been

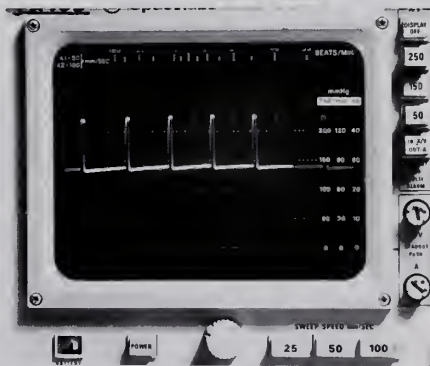
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wrung out. There isn't a whole lot of financial stability left in the rural system. Furthermore, in rural Minnesota we have a high number of Medicare and Medicaid patients, and other third-party payers are resisting shifting any of the cost to their patients.

**REECE:** *Tell us about your patient mix. How many are Medicare, how many are Medicaid?*

**CHRISTENSEN:** About 20 percent of our patients are on Medicaid and 25 to 30 percent on Medicare. But some of our Medicare patients belong to the seniors HMO. About half our practice, maybe more, ends up being a discounted practice.

**REECE:** *Are your incomes rising, falling, or remaining the same?*

**CHRISTENSEN:** It's been a roller coaster for 17 years. There were bad years in the early '80s, when we took severe financial hits. In the last couple years, our incomes have been rising, primarily because my founding partner left the practice to take an administrative posi-

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**"Maybe that's what's driving me now—the realization that quality and access to medicine could be jeopardized in rural areas."**

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tion, making our four-doctor practice a three-doctor practice and forcing longer hours to cover our practice adequately. During that transition the incomes naturally went up. Now, as we bring more physicians on board, I suspect our incomes will drop again.

**REECE:** *Is the lower income level a deterrent to attracting young physicians?*

**CHRISTENSEN:** Yes, it's one of many factors. Another is reimbursement. If you come out of medical school \$50,000 in debt, and you're not going to be reimbursed adequately in rural Minnesota, you go someplace else. Also, young physi-

cians have different lifestyle expectations than we did. By that I mean they cherish time off and alternatives to working. Other problems—the on call, the lack of ER back-up, and other factors—make the rural physician's life more stressful.

## Convincing the Politicians

**REECE:** *Let's turn to politics. As we speak, you have just returned from a meeting with Governor Perpich. What was the reason for that meeting?*

**CHRISTENSEN:** The Minnesota Medical Association brought together a group of physicians representing urban and rural and specialty and family practice to meet with the governor regarding Medicaid reimbursement. We explained to him our concerns about the low Medicaid reimbursement in Minnesota and how it will affect the future of practice—urban and rural—in Minnesota.

**REECE:** *As I understand it, you're currently being reimbursed at 50 percent of the 1982 fee schedule. In most instances, this level of reimbursement doesn't even meet your overhead.*

**CHRISTENSEN:** At that level, few clinics are able to meet overhead. Our overhead runs 60-plus percent. In the early days, if you had an overhead of over 40 percent, there was something wrong with the way you ran your practice. Now, because of the personnel required, the paperwork, and all of the other factors that go into a quality medical practice, the overhead is very, very high. And Medicaid reimbursement does not cover that. So basically, physicians who see Medicaid patients are paying out of their pockets to see those patients.

**REECE:** *You were also part of a Minnesota medical delegation that went to Washington, D.C., this fall to talk to representatives and senators. You went as a unified body supporting the idea of erasing the differential reimbursement between urban and rural physicians and hospitals. How were you received?*

**CHRISTENSEN:** Very well. The Minnesota legislators were very supportive of a resolution implementing the resource-based relative value scale and ending the urban-rural differential. Resource-based relative value reimbursement and urban-rural issues are concepts that Minnesota physicians can support. The resource-based relative value scale and the urban-rural differential problems affect the whole state. We are unified in our feelings that something needs to be done.

**REECE:** *As a realist, do you foresee any help for the rural health system, or will it continue to experience turbulence?*

**CHRISTENSEN:** There will be continued turbulence. I see help, but I feel a sense of urgency. Right now Congress is focused on the rural issue, but Congress could quickly lose its concentration. The focus will be off rural health if we don't act now. We need to do everything we can to rectify the present inequities. Small, geographically isolated communities need physicians, and the physicians have to be paid. We need an adequate number of physicians so the physicians we have don't burn out and so they can lead fulfilling lives while keeping a medical system together.

I'm an optimist. I believe if we hang together as a professional team, focus on our strengths, work on our weaknesses, and get help from the government, we'll continue to have good health care in the more remote regions of Minnesota. ■



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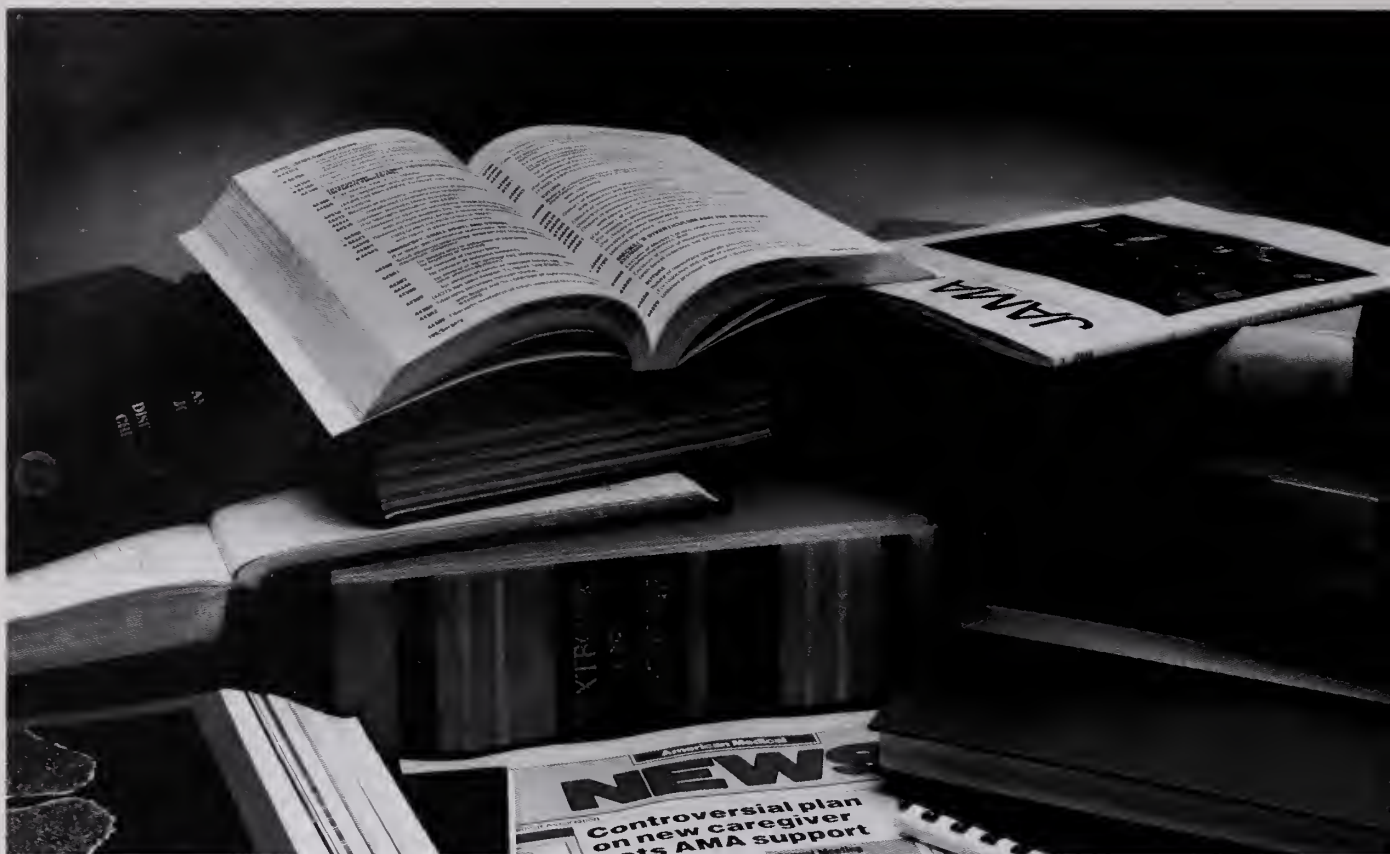
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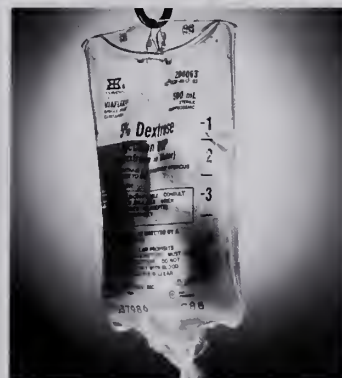
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# Modern Medical Training Confronts Guatemalan Poverty

Larry Westreich, M.D.

Just after I got to the hospital, the seven-month-old began to tire. He spent the rest of the day dying.

Pneumonia had filled his bloodstream with bacteria, and the fever would not break despite our most powerful antibiotics. As he went into heart failure, I desperately thought back to what I had read only a year earlier about infants in heart failure. When the baby finally stopped breathing, I tried to give artificial ventilation as we had been taught in our CPR classes, but I could not resuscitate him. The baby's lungs and upper airways were full of thick secretions that I could not clear, and without a suction apparatus, ventilator, or the proper drugs, my resuscitation effort was doomed. I didn't have the experience necessary to resuscitate an infant; the reading materials and mannequins in medical school cannot substitute for experience.

I had this nightmarish experience my first day on duty as a medical student at the Behrhorst Clinic, a 70-bed hospital and outpatient clinic in the rural Guatemalan town of Chimaltenango. Although I was supervised by Guatemalan doctors, they were often overburdened with work, so I, an American fourth-year medical student, sometimes took care of critically ill and dying patients. Never had I imagined responsibility like that when, as a first-year medical student at the University of Minnesota, I first learned about the Behrhorst Clinic.

The story of the Behrhorst Clinic began in 1962, when Carroll Behrhorst, M.D., first arrived in Guatemala from Kansas. Unsatisfied with

his practice at home, Behrhorst sought a more spiritually rewarding career. In his search for that career, he found that North American medicine was often useless in Guatemala, where public health measures and social justice issues affected the people's health much more. Handing out antibiotics to people who went back to disease-ridden villages, Behrhorst soon realized, was frustratingly ineffective. Consequently, over the years he established a foundation in

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**"Over and over again during my eight weeks in the little hospital my frustration burst through at the lack of what I considered proper medical care."**

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Guatemala that promoted many objectives not usually considered "health care." In one statement of the foundation's purpose, Behrhorst listed six issues that needed to be addressed ahead of curative medicine: social and economic justice, land tenure, agricultural production and marketing, population control, malnutrition, and health training.<sup>1</sup>

Before my own trip to Guatemala I had done what I thought was adequate mental preparation. I read about Guatemala's people, its political climate, and especially about medical care in Central America. I knew that medical practice in an educationally and economically deprived land would be very different from the medicine I

had learned in Minnesota's renowned teaching hospitals. I steeled myself to expect a lack of equipment, medicine, and trained personnel in the hospital, and I mentally cautioned myself not to apply my Western expectations of medicine to a non-Western milieu.

Yet over and over again during my eight weeks in the little hospital my frustration burst through at the lack of what I considered proper medical care. "Why was there no insulin?" I asked myself. "How could they call these people nurses, who couldn't even multiply?" I would rage to myself or the other American medical students. My cloak of cross-cultural sensitivity slipped off my shoulders and into the dirt that first day, when I saw a baby die for lack of equipment commonplace in every other hospital I had seen in my life.

Fortunately for me, several other American medical students worked at the clinic during part of my time there, and my first-day feeling of total aloneness was rarely repeated. The other students had similar feelings of incredulity—and sometimes flat out anger—at some of the cases we saw in the hospital. When we could gather our wits enough to think about the clinic's problems, we first came up with the obvious ones.

The hospital lacked three things: medicines, equipment, and knowledge. The lack of medicine was not limited to rarely used drugs, but included insulin and common heart medications such as nitroglycerin. The hospital lacked such fundamental medical equipment as ventilators, autoclaves, and basic laboratory equipment. Medical



## 'New Horizons' Takes Students to Third World

**J**ust two years ago, Walter Franz, M.D., who teaches at Mayo Medical School in Rochester, returned from a trip to the Dominican Republic with an idea.

He had volunteered his medical services to accompany a college group for a week to give aid to poor Dominican villagers. By the time he returned to Rochester, he had the beginnings of a plan to combine his desire to help disadvantaged people with his interest in teaching family medicine.

Franz's idea was to have groups of medical students travel to Third World countries to provide medical care for a week in poor rural areas under the supervision of volunteer doctors traveling with them. The students would provide much of the organization and fund raising for the trip themselves. They would offer much-needed health care and would reap the benefits of an unusual educational experience. When Franz mentioned his idea to students in his "Introduction to the Patient" class, their response was enthusiastic. With his guidance, the students created New Horizons, the educational and charitable program that since August 1988 has sent three medical groups to underdeveloped countries—two groups to the Dominican Republic and one group to Guatemala. Each trip takes about a week, during which the doctors, students, and other volunteers become part of the village where they are providing care. They eat the native food and live under the same conditions as the villagers. As many as 300 patients are treated each day with the donated drugs and equipment that the Mayo groups bring with them.

"We're very proud of our efforts, especially since we started from scratch," said Franz. "I'm really happy that the students are able to do this so early in their careers, to kind of get them turned



PHOTO BY BONNIE BRESSERS, ROCHESTER POST-BULLETIN

on to medicine. They see that whatever type of physician they are interested in becoming, it's always useful to think and act like a primary care physician."

Juan Leyva, M.D., is one of the best examples of the success that New Horizons has had in "turning on" students to medicine and primary care. A year ago—when he made his first trip—Leyva was a fourth-year medical student at Mayo who was becoming disillusioned with his plan to become a psychiatrist. He was considering giving up medicine entirely.

"I just didn't see much satisfaction for me in the field of medicine," Leyva said, "but after going down to Guatemala, I had a radical change of plans. I became aware of how valuable an M.D. degree is and the great need there is for physicians, especially in the Hispanic culture."

Leyva is now a resident in the family medicine program at the Mayo Clinic.

Another medical student on whom New Horizons has made a major impact is Julie Iverson, a third-year student who has made two trips. Iverson said that she will

continue to donate her time to disadvantaged people whenever she has the opportunity. She also gives her experience with New Horizons high marks for its educational value. "We learned from everything we saw and everything we did. It was very good for all of us, regardless of the level of training," she said.

Although its goals are to help educate medical students and to do some good for the people they treat, the program has also had a positive effect on others who have volunteered their help on the trips, such as doctors, nurses, and translators.

Former Mayo resident Marty Kannes, M.D., said his experience with New Horizons early this year in Guatemala left him feeling more relaxed than if he had spent a week at a resort. "We worked our butts off in the mountains," he said, "but there are no lawyers or malpractice suits, and the people can't thank you enough. It's pure medicine."

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knowledge also was a scarce commodity at the clinic, although the Guatemalan doctors were quite skilled at treating common maladies such as parasites, dehydration, and hepatitis. But the nurses at the clinic, though well-intentioned, could turn simple treatment of a patient into a medical disaster. None of the clinic's nurses had any medical training; they were "nurses" because they worked at the clinic. Because of their lack of understanding, they would sometimes miscalculate dosages of dangerous drugs or ignore patients in distress.

I found myself imagining the *deus ex machina* of a massive infusion of medicine, equipment, and knowledge into rural Guatemala. With enough money and planning, surely decent medical care could be transplanted into Chimalte-nango, I would often muse. But then I thought about all the other small towns in Guatemala and Central America and about the indigenous people who had to screw up their courage to walk into our little clinic, and I knew they would never set foot in a gleaming U.S.-style hospital. I thought about the wretched conditions in many of my patients' homes, their 50 percent infant mortality rate, and the rampant malnutrition of their children. Medicine alone can't solve these problems. Their solutions lie in the politics of fair land and wealth distribution and in public health measures. Among the factors that could improve their lives are adequate food and potable water, education, and culturally sensitive health care.

Although adequate availability of food is probably dependent on fair land distribution, potable water is another matter. Rivers in which people bathe and do laundry are manifestly unsuitable for drinking water, but a well drilled down to bedrock can alleviate, if not solve, the problem. The Behrhorst Foundation is active in digging wells for potable water, which may be the most effective disease prevention program of all.

Land reform is not so simple. The last Guatemalan governments

that made any realistic attempts to redistribute land to the farmers were the Arevalo and Arbenz administrations during the "ten years of spring" from 1944 to 1954. In 1954, North American and Guatemalan businessmen, with help from the CIA, engineered a coup d'état that ended Guatemala's brief fling with democracy. Although Guatemalan leaders since have paid lip service to the idea of land reform, no one, including the current president, Vinicio Cerezo, has made any structural changes in the way land is apportioned in Guatemala.

One does not need to be an agronomist to see that the coffee and bananas grown for export in vast, privately owned farms do not do much for the hungry in Guatemala. The mountainsides left over to the *campesinos* (small-scale farmers) for planting their corn and beans do not provide an adequate diet, leaving children and many adults chronically malnourished. There must be a way, unsettling or

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**"The nurses at the clinic, though well-intentioned, could turn simple treatment of a patient into a medical disaster."**

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not, to change a system that enriches a few and strangles so very many.

The Behrhorst Foundation, under Carroll Behrhorst's guidance, officially has taken a neutral stance in the political and guerrilla struggle for the land reforms so necessary to the people of Guatemala. This neutrality has allowed the foundation to avoid dismemberment at the hands of pro-government as well as anti-government forces. As Behrhorst wrote in 1983:

"... Our institution has always presented itself as 'apolitical,' taking no part in local politics, and has enjoyed a broad base of popular support. . . . We have tried to pursue a middle course, carrying on with our work in a flexible,

prudent manner, offering help to any who seek it, regardless of their position in the conflict."<sup>1</sup>

Although the foundation has been criticized for its political neutrality in the face of Guatemala's injustices, anyone who sees the clinic and its work can have no doubt about the foundation's loyalty to the *campesinos*.

**F**rom the doctor's standpoint, education about simple health care matters ranks above all other types of education. If an infant's mother knows that severe cough, difficulty breathing, and fever are sure signs of impending death for her baby, she is more likely to bring her child in before all hope is gone. Encouraging breast feeding rather than bottle feeding can do much for vast numbers of poor people.

There is another kind of education, above and beyond knowledge about purely health-related issues. This sort of education teaches about the world outside one's village or town and enables the student to go out into the world beyond his or her birthplace. Authoritarian governments fear this kind of education, because a system based on repression, as is Guatemala's, cannot bear to have its subjects study Gandhi or Martin Luther King. Even students who return to their homes with advanced knowledge in an "apolitical" field like health care face persecution, because anyone who teaches or organizes necessarily empowers people to control their own destiny. If people can organize themselves, the reasoning goes, soon they'll want clean water, a decent wage, and just everything. During the 1980-83 violence in Guatemala, many native health workers who trained at the Behrhorst Clinic were murdered, and today priests and lay workers in rural Guatemala remain in grave danger if they organize people or preach liberation theology.

Education about health need not only be effective and accurate, it must be culturally sensitive. This cultural sensitivity was yet another personal dilemma I faced in Guate-

mala. Some parts were easy, like respect for the language, culture, and beliefs of the indigenous Cakchiquel, who were the majority of my patients. Sometimes, however, these beliefs clashed head on with my obligations as a physician. The issue of birth control epitomizes this conflict, and although indigenous nurses handled most questions about birth control at the clinic, the prevailing sentiment among my patients was in favor of having as many children as physically possible. I sometimes had the impression that children were desirable first and foremost as additional field workers. Traditional indigenous reactions to birth control have been well summed up by the expatriate Guatemalan organizer Rigoberta Menchu:

"... to us, using medicine to stop having children is like killing your own children. It's negating the laws of our ancestors, which say we love everything that exists. So what happens is, our children either die before they are born, or two or so years afterwards, from no fault of our own. . . . It's not the Indian's fault if he gives life to a child and then sees it die of hunger anyway."<sup>2</sup>

This attitude, combined with the Roman Catholic Church's powerful influence in Central America, leads to widespread resistance to birth control measures. Although I sincerely believe that birth control measures would reduce Guatemala's hunger and misery, many of my patients just as sincerely believe that birth control is unconscionable. I did not know when I was in Guatemala, and I do not know now, if these two beliefs ever can be reconciled. I do know that patients have the right to determine their own destinies, and that in the final analysis their decisions must be respected, even if I believe that they are bad decisions.

Looking back at my time in Guatemala, I remember all that I learned and the deep respect I gained for the people of Guatemala. I cannot help but remember the daily pain and frustration I felt when confronted with problems that, although easily dealt with in



PHOTO BY BONNIE BRESSERS, ROCHESTER POST-BULLETIN

America, simply have no solution in a developing country like Guatemala. One friend, who has worked for many years as a nurse for the Red Cross in developing countries, assured me that my reaction was normal and that it would pass. After spending considerable time away from Western medicine, she said, one learns to appreciate any little bits of help that can be given and forget about the rest.

Part of my frustration was due to the Behrhorst Clinic's basic principles, although I accept those principles. Behrhorst, when faced 25 years ago with the same frustrations as I, decided that agricultural production, health education, and malnutrition were all more important issues for the people of Guatemala than was curative medicine. Consequently, the clinic's philosophy and resources are directed toward projects that fall outside the scope of what I consider medicine.

Although I wholeheartedly agree with Behrhorst's philosophy, I have been trained in curative medicine, and I hate to see patients' diseases untreated or poorly treated. I certainly understand that education and political justice are paramount

in Guatemala, and as a physician sworn to protect the life and well-being of my patients, I feel obligated to work toward these ideals. But every time I think about Guatemala's development priorities, my thoughts return to my first day in the hospital and the seven-month-old who died in front of me. Perhaps with more experience in health care for developing countries and some time to reflect, my soul as well as my mind will accept the principles of the Behrhorst Clinic.

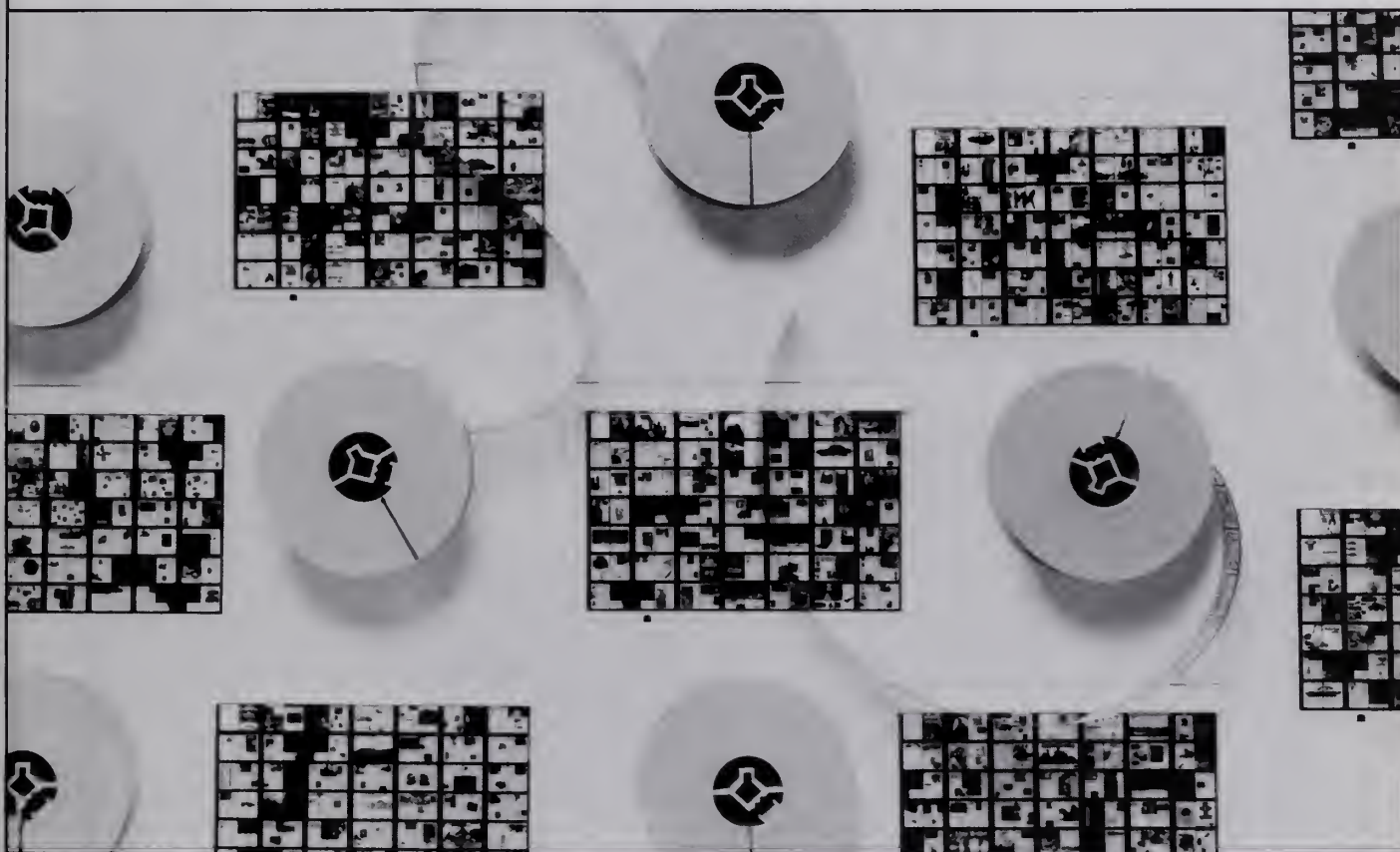
*Larry Westreich received his M.D. from the University of Minnesota Medical School in 1988. He is now in psychiatric residency at the Beth Israel Medical Center in New York City, after completing a one-year internship at Hennepin County Medical Center in Minneapolis.*

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# IN AMERICA'S SMALL-TOWN HOSPITALS, A Patient *Isn't*



## 'Just a Number'

Richard J. Margolis



*Photographs by Gail Mooney*

**I**t happened one August night without warning, while our family was vacationing on an island off the coast of Maine. One moment Philip, our 12-year-old, was on a porch rocker joking with us; the next he was on the bare floor writhing in pain.

In a panic I carried Phil to his bed—he couldn't walk—while my wife, Diane, ran to get Alex, a Boston internist who happened to be summering at the cottage next door. "Torsion of the right spermatic cord," Alex pronounced, gazing down on our stricken son. Somehow a vital connection in Phil's groin had gotten twisted. The warp was choking off his blood supply.

"I've only read about such cases," Alex confessed. "Never actually saw one before."

Very tentatively he reached down and touched the tender area. Phil jerked and let out a howl. "Sorry," Alex muttered. He took Diane and me aside. "I think we better get your boy to St. Andrews right away. For something like this you don't want to wait too long."

St. Andrews Hospital lay an hour across the water in the little town of Boothbay Harbor. Could people who worked in such an out-of-the-way place be expected to possess the skills our son so urgently needed? We had our doubts, but there was no time to speculate. With another neighbor's help, we managed to get Phil down to the dock and onto a borrowed boat equipped with an outboard motor. In smooth, dark water we sped off, following a streak of moonlight that seemed headed toward Mill Cove and the hospital dock. Not another soul was on the bay.



Susan Bierl, who is not on staff at the Comfrey Hospital, comes in every morning for physical therapy sessions with Ethan, who was partially paralyzed in an accident. The hospital installed a makeshift weight-and-pulley system especially for him.

**"Maybe I can unravel this thing for you."**

Alex had telephoned ahead. A nurse with a wheelchair and a blanket awaited us at the pier. Within minutes Phil was lying on a bed in the emergency room and being examined by a man who introduced himself as Dr. Gregory, a large man with lots of gray hair and a reassuring voice. "Let's see what we have here," he said to Phil. We held our breath and watched as the doctor's long fin-

gers searched for the offending knot. Phil's body stiffened but he made no sound. "Just relax," Dr. Gregory murmured. "Maybe I can unravel this thing for you."

Between his thumb and middle finger the doctor was delicately kneading the invisible rope. Suddenly Phil's muscles went slack; he emitted a deep sigh. So did we—for it was plain that Dr. Gregory's educated fingers had untwisted the cord.

He patted Phil on the shoulder

and stood up. "We'll want to keep you here overnight," he said, "just in case that thing decides to get troublesome again. You don't mind spending the night with us, do you?"

"Nope," Phil said. And for the first time in five hours, he smiled.

All of the above occurred 19 years ago. Through the intervening years, until very recently, I held to the idea that our family's luck that scary night had been extraordinary, that in St. Andrews we'd happened upon a rare rural gem. Now I think otherwise. One of the many things I have learned from a recent round of visits to rural hospitals in several states (including an eye-opening return to Boothbay Harbor) is that our good fortune was just a routine entry in the annals of small-town medicine.

The knowledge has taken some getting used to. We live in a city that boasts two major hospitals, one with 491 licensed beds, the other with 875. Each in its way typifies the sort of high-powered, university-affiliated complex that most city dwellers equate with first-rate health care. By contrast, an urbanite's mental picture of a rural hospital is likely to resemble a faded turn-of-the-century etching, featuring ornate Victorian architecture, generally shabby upholstery, and hopelessly primitive equipment.

Such hospitals did in fact once dot the rural landscape. Writing a half-century ago, here is how Arthur E. Hertzler, M.D., a Kansas country physician, reminisced about those early institutions in his autobiography, *The Horse and Buggy Doctor*. In his youth, Hert-



Comfrey Hospital and Clinic sits on the main street in town—an unpretentious brick building but the lifeline for this town of 500+ people.

zler recalled, the typical small-town hospital was "in a private residence. . . . Sometimes the doctor and his family lived downstairs and the wife did the cooking. . . .

"Usually half a dozen or fewer hospital beds found available space in these houses. The operating room was usually the bedroom of the former cook. . . . The kitchen stove usually supplied the heat for the sterilization of the instruments and dressings. This made it necessary for the doctor to eat an early breakfast, so that the stove could be available as a sterilizer when it came time to prepare for the operation. Operating in such hospitals was but slightly removed from the kitchen surgery of any private residence. . . .

"It is enough to make one weep," Hertzler mourned, "to think back on those early beginnings."

### Urban medical centers in miniature

These days the good doctor would not have to weep. The hospitals I visited were indeed small in comparison with their big-city cousins—they ranged downward from 73

beds to a mere eight—yet they gleamed with modernity. In most instances my first impression was that of an urban medical center in miniature. Even the most Lilliputian of them all—the one in Comfrey, Minnesota, with its eight beds—boasted an outpatient clinic, operating and recovery rooms, a blood bank, a pharmacy, a 24-hour emergency room, delivery and nursery facilities with two bassinets, and social services. Many maintained intensive care rooms equipped with monitors that could flash the jagged trajectory of a patient's heartbeat.

But rural hospitals do not compete with their urban counterparts—at least not in cases requiring the more exotic skills and technologies. "Don't come here if you need open-heart surgery or a kidney transplant," says Matthew J. Rimas, M.D., Comfrey Hospital's only full-time physician. "But for most illness you can get as good medical care here as you can anywhere." (Like many small hospitals, Comfrey has access to a helicopter for emergency transport of patients whose ailments defy the hospital's healing powers.)

Even as I sketch this picture,



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**"Call it one-on-one graciousness; call it sympathy; call it, for lack of a better pun, small-town hospitality. Whatever the label, it is a force that operates at the very center of most rural hospitals in America."**

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however, I have an uneasy sense of having left out its most remarkable feature. Call it one-on-one graciousness; call it sympathy; call it, for lack of a better pun, small-town hospitality. Whatever the label, it is a force that operates at the very center of most rural hospitals in America. Yet it is so universally taken for granted, that hardly any of the scores of doctors and nurses I talked with seemed conscious of its presence.

"Do you do anything special for bereaved families?" I asked a nurse at Grant Memorial Hospital, a 59-bed facility tucked into the mountains surrounding Petersburg, West Virginia.

The nurse, a veteran of many years' service, gave the question considerable thought. "No," she finally answered. "I don't recall our ever doing anything out of the ordinary for the bereaved. Oh, sure, we cry with them and we sing with them and we pray with them. But no, nothing you could call special."

### **[ Pies from scratch, real mashed potatoes ]**

A rural hospital, then, may be a place where nothing "special" ever happens. Where no one is a number; where everyone knows your name, tolerates your quirks, and shares your griefs; where the nurses celebrate your birthday. Where, when you telephone to say you feel sick and wish to be admitted, they turn down your bed and have the florist deliver a half-dozen pink carnations to your room. Where visiting hours do not matter even if they are posted—relatives

and friends come and go as they please; where a turned-on light over your door instantly brings a nurse to your bedside. Where the kitchen staff makes bread and pies from scratch, and *real* mashed potatoes, and if you don't like the evening menu, someone will run to the corner and bring you a pizza with mushrooms and onions—and no anchovies. Where your tattered pajamas may be mysteriously replaced one evening by a brand-new pair, with the price tag removed. ("For what us nurses make around here," one of them at Grant Memorial marveled, "we sure are free with our money.")

Such everyday dispensations are all duly recorded in my notebooks. They have become part of my education. From them I conclude that small-town hospitals draw energy from secrets all their own; within the national health care system, they emerge as unique institutions where the curing and the

caring are one and indivisible.

At Grant Memorial I was introduced to a patient whose lengthy sojourn there perfectly illustrates the bond between caring and curing. The patient's name is Shane. He is a dimpled, brown-eyed infant born about three months prematurely on January 14, 1988, at West Virginia University Medical Center in Morgantown.



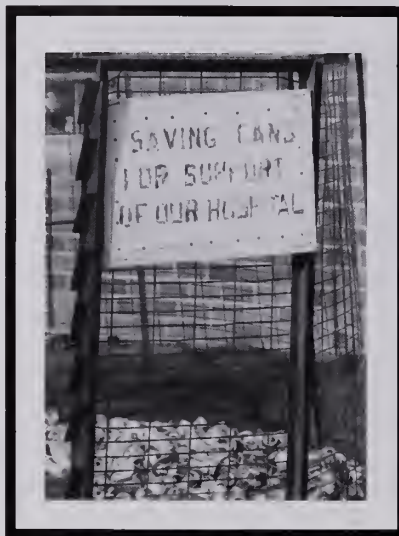
**"We make everything from scratch here," says Comfrey's Bernetta Helget as she sets out a batch of her "delicious cookies" to cool.**

Shane had two and a half strikes against him. Within weeks after birth he went into heart failure and barely survived. Among other things, he was suffering from a malady doctors have dubbed "stiff lung"—the technical term is bronchopulmonary dysplasia—meaning that his lungs were unable to absorb oxygen. There is no known cure.

For five months the doctors and nurses in Morgantown kept Shane alive. They gave him oxygen through tubes in his nose; they fed him nourishment through tubes to his stomach. Then, with little hope for Shane's future, they sent him to Moorefield, where his 18-year-old mother worked in a chicken-processing plant.

Shane still required around-the-clock medical care. He ended up in Grant Memorial. "You should have seen him when we got him," says Linda Davis, director of nursing there. "It was pathetic. He just lay in his little crib without moving or making a sound. A baby at six months is supposed to laugh and cry, but Shane couldn't do either. Absolutely no facial expression: he didn't smile, he didn't frown. Then we discovered he couldn't suck very well, which meant we needed to feed him very often and in very small amounts. Believe me, Shane was one sad baby."

What happened next seemed entirely spontaneous and unrehearsed. "We sort of adopted him," Davis recalls. "We treated Shane like our own." The nurses gave him toys to play with; they clothed him in new, colorful nightgowns; they kept talking to him, cooing over him, picking him up, and carrying him around.



Last year Comfrey's community raised hundreds of dollars by recycling cans.

As Cathy Crites, another nurse at the hospital, notes with severe approval, "That baby was spoiled rotten. When we had to do our charting at the desk, we took Shane with us and let him sit on our laps while we wrote out our reports. I don't think we hardly ever set him down."

In time Shane began to respond to all the attention. He learned how to laugh and cry. His new talents only increased the pampering. "Whenever he cried," says

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**"Hope in rural America really does spring eternal—the citizens there have no choice—and where there is hope, there may also be energy and imagination."**

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Crites, "one of us would pick him up right away. We were in terror he'd choke to death. Of course, he caught on right away and he cried all the time. It was a kind of

blackmail."

Shane also learned to eat from a spoon, but only when the spoon was proffered by one of the full-time nurses familiar to him. "The part-timers never had much luck feeding him," Crites says. "But when one of us full-timers offers the spoon—Wow!"

On Shane's first birthday there was plenty to celebrate. He was six times his birth weight—he now weighed slightly more than 14 pounds—and most days he was able to breathe without benefit of oxygen tubes. At his birthday party, says Mary Beth Barr, the assistant director of nursing, "Shane giggled and ate cake with a spoon. We were so proud of him. He's such a good boy."

I had set out to learn about small hospitals because I had heard they were an endangered species. I wanted to see what we as a nation stood to lose if we allowed these modest facilities, largely hidden from metropolitan eyes, to vanish. From a rural perspective, of course, such a loss would be catastrophic, not only in terms of the local residents' health (and the local economy) but also in terms of their pooled pride. For there is something about a small-town hospital that can inspire an altogether refreshing awareness of civic consequence. As a housewife who has lived all her life in Independence, Iowa (pop. 6,150), reminded me, "It's simply a matter of our self-respect. A town that loses its hospital has one less thing to be proud of."

Many small communities nowadays are having to face the indignities of subtraction. Of the 2,599 rural hospitals still extant—most with fewer than 100 beds—quite a



Five-week-old Rachel Mathiowetz, whose grandmother is a Comfrey nurse, in Dr. Matthew Rimas' capable hands.



few are verging on bankruptcy, and each year some 40 are going belly-up. A study published recently by the U.S. Senate Special Committee on Aging predicts that over the next few years as many as 600 more will have to close their doors (80 in Texas alone).

Nobody knows for sure how to diagnose this disorder, much less

what remedies to prescribe. While depressed rural economies are often a factor, the villain rural partisans most frequently single out, surprisingly, is none other than Medicare, the federal health insurance program for the elderly. In part, that is because Medicare reimburses rural hospitals at a substantially lower rate than it does

urban hospitals. The difference has amounted to about 20 percent, and can go as high as 50 percent in some hospitals. In addition, Medicare's system of payments inadvertently penalizes small-town hospitality.

In the past, Medicare and hospitals had maintained a kind of gentleman's agreement whereby hospitals were trusted not to levy unreasonable charges for elderly-patient care. It was Medicare's custom to pay hospitals whatever amounts they requested, with little scrutiny. However, this blank-check approach to doing business probably encouraged considerable hospital inefficiency and avarice, in about equal parts.

Congress changed all that in 1983. Nowadays, instead of presenting a blank check, Medicare hazards a prediction of how long each patient is likely to be hospitalized, and then bases its payment strictly on that forecast. The new system may have saved taxpayers some dollars, but it has posed cruel dilemmas where patients require lengthier hospital stays than Medicare is prepared to compensate.

Such cases can be costly, which is why city hospitals rarely hesitate to discharge a patient who is no longer covered by Medicare. Quite a few rural hospitals, on the other hand, prefer to keep the patient and damn the expense.

The Henryetta Medical Center, a 52-bed facility in Henryetta, Oklahoma (pop. 6,290), is one of those. About three-fourths of its patients are insured by Medicare. In a three-month period, says James L. Clough, the former administrator there, "we lost nearly \$80,000 on



Rimas examines Michael Jacobsma and is assisted by Michael's mother, Cheryl, in the Comfrey Clinic.





Borghild "Bugs" Fredin visits her friend Edna in the Comfrey Hospital. In small-town hospitals, visiting hours, even if posted, are rarely kept. Friends and relatives drop in at any time.

just six patients." Clough has meticulously described one of the six cases in a letter to Representative Mike Synar of Oklahoma.

An 80-year-old man dying of cancer was admitted to the hospital. His legs were paralyzed; he was in severe pain and required a morphine injection every four hours. As Clough tells it, "Attempts were made by the hospital and physician to place the patient in a skilled nursing facility located in Tulsa (47 miles away), but there were no beds available." The possibility of home care, with nursing visits, was also discussed. But it turned out that the man's wife couldn't provide, by herself, the care he needed throughout the day.

Finally, Clough continues, "it was decided that the patient would have

to stay at the hospital." He died there 68 days later. The hospital sent Medicare a bill for \$26,660. Medicare sent back a check for \$2,477 and marked it "Paid in Full."

Medicare rules aside, the simple dictates of neighborliness can play havoc with a small-town hospital's tight budget. In many such communities it is taken for granted that the poor no less than the affluent are entitled to medical care. To rewrite Robert Frost's famous dictum about home, a rural hospital is a place where, when you have to go there, they have to take you in. That is why village hospitals tend to donate more than their share of what health care commentators like to call "unreimbursed services."

At Grant Memorial I met an 88-

year-old patient—the nurses called her "Miss Judy"—who had been there 48 days following gallbladder surgery. So far she'd run up a bill of more than \$55,000, while Medicare's 15-day limit called for reimbursement of only \$9,742. "She's got a daughter who works," explained Linda Davis. "How can we send her home when there's nobody to take care of her?"

A sign in the lobby of Grant Memorial tells the story: "Payment is expected when services are rendered unless other arrangements have been made in advance." In a region famous for poverty, those "other arrangements" can be costly to the hospital. "We don't turn anybody away," says Robert L. Harman, Grant Memorial's friendly, low-key administrator. "One way or another,

**"A rural hospital may be a place where no one is a number; where everyone knows your name, tolerates your quirks, and shares your griefs; where the nurses celebrate your birthday."**

we'll cover it."

John L. Hahn, M.D., the hospital's only obstetrician, told me that he delivers about 300 babies a year, and two-thirds of his patients are on Medicaid, the combined federal and state health insurance program for poor people. But Medicaid pays only about a third of Hahn's actual bill. "When somebody's down and out," he said, "I don't go after the rest of the money. I know what it's like to be poor." Then he added with a smile, "Don't advertise that."

**["We did it because it was right."]**

People's Memorial Hospital in Independence, Iowa (20 miles east of Waterloo), nicely exemplifies this form of economic hospitality, so different from what patients experience in city hospitals.

"When the farm crisis hit us a few years ago," recalls Robert J. Richard, the hospital's administrator, "we tried to make things easier for the families who were hurting most. Lots of them had no health insurance—the farmers could no longer afford it, and quite a few of the workers in plants around here got laid off, so they were unprotected, too. We made it a point to accept every patient who needed care. It cost us a bundle, maybe a quarter of a million dollars, but that was OK. We did it because it was right. We're very much a part of this farm community. Our social mission is paramount."

But, perhaps because this was Iowa, some proud patients inevitably objected to the hospital's generosity. "I don't mean to be

disrespectful," an impoverished farmhand, the father of three small children, wrote to Richard after the hospital had written off a \$380 charge for his daughter's stay there, "but I just can't understand how you could do what you did to me. I intend to pay you back every cent." And he did.

Administrators and board members who have been entrusted with the fate of their town's only hospital can be understandably pessimistic these days. In a recent national survey of hospital administrators taken by the accounting firm of Touche Ross, 48 percent of those heading small hospitals thought their institutions would fail in the next five years. On the other hand, hope in rural America really does spring eternal—the citizens there have no choice—and where there is hope, there may also be energy and imagination.

Consider the case of the Central Valley Medical Center, a 30-bed hospital in Nephi, Utah. The dietician there, along with her kitchen staff, had to be on hand even when there were only two or three patients to feed. So the hospital administrator, Mark Stoddard, put them to work baking birthday and wedding cakes (from scratch, of course), not to mention Christmas cookies and Valentine cupcakes, and selling them to local customers. The profits, about \$3,000 a year, help to defray the hospital's food bill.

"We're trying to do everything we can to make ends meet," Stoddard says. To cut down on

expenses, Nephi (pronounced "knee-fi") has taken a step that many independent-minded rural hospitals nowadays find distasteful but necessary. It has teamed up administratively with the hospital in Gunnison, 41 miles down the road. The two institutions buy supplies together, rely on some of the same specialists, and use some of the same mobile equipment. Stoddard administers both.

Comfrey Hospital in southwestern Minnesota, which serves a farm community of some 1,800 people, has taken a similar step. The state's smallest hospital, it has joined with four others in the area to form a portion of Health Network of Minnesota, a coalition of hospitals in and around the southwestern part of the state. But in Comfrey's case

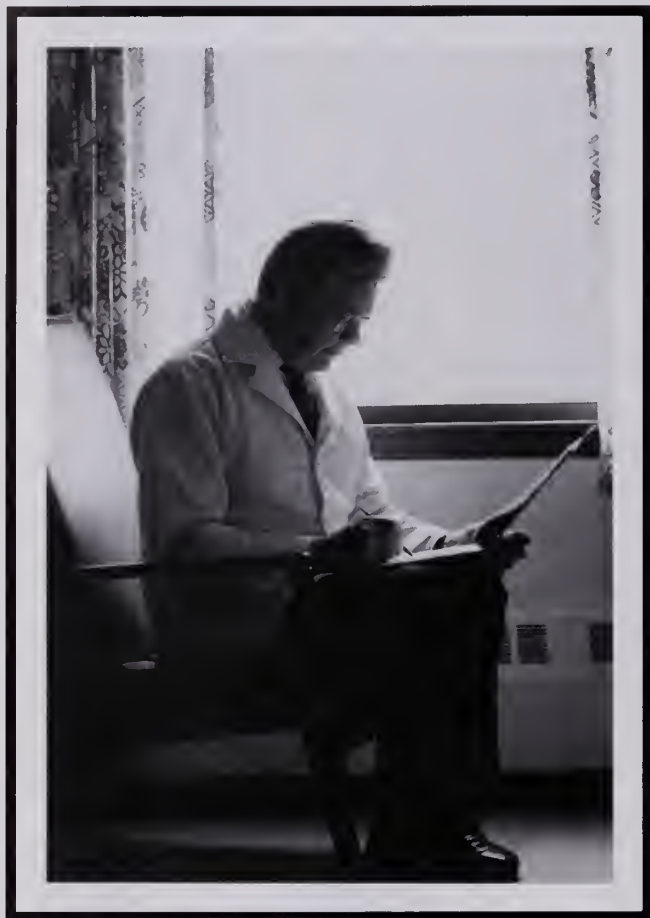


**Nurse Elaine Tindeland administers a shave and some TLC to native Comfrey resident Jerry Savage.**

the collaborative spirit may be turning sour.

"We're the underdog," says Gary Richter, the young editor-publisher of the *Comfrey Times*, "but we're going to fight the odds." The odds, according to an areawide





Rimas fills out a chart in a patient's room. With the clinic just down the hall from the hospital, he is able to visit patients throughout the day.

robin. Much had happened since our fortuitous visit 19 years ago. The old building, where Dr. Gregory had so deftly unraveled our son's distress, had become a 30-bed nursing home. Attached to it was a new, 22-bed acute-care wing, built at a cost of \$2.3 million and opened in August 1987.

### **A hospital with familiar rural ailments**

At first glance, all seemed well at St. Andrews. A second look, however, tended to darken the rosy picture. A few years back, I was told, the hospital began to be troubled by some familiar ailments. Its occupancy rate dropped to 28 percent. At one point the pinch was so bad that St. Andrews' staff, ever the cheerful givers, had consented to accepting a 20 percent cut in their pay.

Each year brought with it another discouraging deficit, and St. Andrews was driven to the very brink of ceding its cherished independence to a slightly larger hospital (27 beds) in Damariscotta, a town on the next peninsula, some 20 miles to the north.

But the merger plan was scuttled by aroused townspeople, and the harbor air has been calmer and brighter ever since. Contributions from the residents, including a fair proportion of affluent summer people, had covered the new construction costs, so the hospital was free of debt. Last year, moreover, its 14-member unsalaried board of trustees had taken steps to firm up the hospital's administrative arrangements. They had signed a managerial contract with the Hospital

study conducted by a Denver consulting firm, are not favorable. "There needs to be a reduction in the number of inpatient beds," the consultants concluded. They singled out Comfrey and nearby Mountain Lake as prime subtraction prospects.

But as Richter says, reflecting the peculiar cussedness of rural logic, "Those are just facts. You don't necessarily have to go with them."

A few days after the Denver report was made public, the townspeople decided not to go with the facts. At an emergency meeting, nearly everyone expressed an inter-

est in "keeping the Comfrey Hospital going"; more surprising, a majority of residents favored the levying of a special hospital tax.

Rural Americans are not generally known for their spendthrift ways. When a group of small-town citizens eagerly volunteers to pay more taxes, they are sending a singular message about their beleaguered hospital: from where they sit, it is indispensable.

I learned more about the fierce local loyalties a hospital can engender when I returned to St. Andrews in Boothbay Harbor, Maine, thereby completing my rural round



**"Small-town hospitals draw energy from secrets all their own; within the national health care system, they emerge as unique institutions where the curing and the caring are one and indivisible."**

Corporation of America, an international chain that owned 79 hospitals and managed 225 more. St. Andrews is doing better this year; it has recruited several more doctors to its ranks; and its occupancy rate has risen a notch. One trustee remarked recently, "For the crisis we went through, we're coming out of it not too badly."

I had been hoping on this visit to shake the talented hand of Dr. Gregory and to thank him once more for his ministrations to our son that strange summer night long ago. But I was told that Philip O. Gregory, M.D., had died in 1983 at the age of 73. He was the son of St. Andrews' founder, George Gregory, M.D., a Nova Scotian who had migrated south in search of a viable practice. "Dr. George" opened St. Andrews on August 1, 1908, naming it for the patron saint of commercial fishermen. Large oil portraits of both father and son gaze down on the hospital's main corridor.

I spent the night at St. Andrews, not certain what I was waiting for. Nothing spectacular occurred—there were no emergencies—but in a small-town hospital, every night produces its own kind of quiet drama. Call it a theater of compassion.

The night's protagonist was Marilyn, a gaunt, middle-aged woman who had recently been operated on for gallstones. It was her third operation in 10 months, so the nurses were not surprised when Marilyn started to hallucinate. "It's the anesthetic," explained Irene Fowle, one of the evening nurses. "It can cause a chemical imbalance. You have to take her seriously. She's really scared."

### **["An Indian" under Marilyn's bed]**

First Marilyn complained that the corridor was full of water, and the water was rising. "I can't swim," she confided to a nurse. Later she called for help because she had discovered "an Indian" under her bed. "What does he want with me?" she wanted to know.

As it happened, all beds were occupied that night, and the nurses were kept busy. But to Marilyn they betrayed no signs of impatience. They answered her calls instantly, comforting her as best they could and pretending to look beneath her bed for hidden marauders.

When all else failed, a nurse's aide named Krista Greenleaf helped Marilyn don leather slippers and a flowered robe, and then walked her up and down the corridor, cooing to her as sweetly and soothingly as the nurses in Petersburg had cooed to Shane. Eventually they made her comfortable at the nurses' station, tucking her into an enormous leather chair, with two pillows behind her head and a woolen blanket draped over her wispy figure. She sat there much of the night, scowling at me and the nurses. With her hair done in braids and her feet dangling several inches above the floor, she looked like a gray-haired child. "I'm frightened to death," she said to no one in particular. "I don't want to stay here and have everyone get hurt."

Krista Greenleaf spoon-fed Marilyn some medicine and hot tea from a plastic cup. "Hush," she said. "You stay right here with us. We need the company."

In the morning I had an appointment with Peggy Pinkham, the hospital's community relations director. "Would you like to see your son's records?" I was asked. The question surprised me. "Do you keep those things?" I asked in return.

Within minutes I was handed a stapled sheaf of papers. At the top of the first sheet someone had typed: "Name: Margolis, Master Philip E. Age: 12. Admitted: 8-29-70. Discharged: 8-30-70. Admission Diagnosis: Torsion (twisted) spermatic cord on the right."

Fascinated, I began turning pages. There were laboratory blood tests, temperature readings, blood pressure readings, three separate pulse notations, and a comment on Phil's respiration ("normal"). At 10:15 that night Phil had "taken well" some soup, a sandwich, and a glass of milk. About an hour later he "appeared to be sleeping." At midnight he was still "sleeping quietly." At 8 the next morning he seemed just fine. "Asymptomatic," someone had written on the chart. "No swelling."

What came over me as I read those precisely scribbled notations was a good deal of ex post facto gratitude. While Diane and I had slept in our vacation-cottage bed, there had been people three miles across the bay keeping wide awake. All night they paid strict attention to our son's health and comfort. It seemed to me he had been in the best of hands.

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## Access to Hospital Services in Rural Minnesota

*Marianne Miller, M.A., and Michelle Casey, M.S.*

A Minnesota Department of Health study on the financial condition of Minnesota's small, rural hospitals found that at least 12 hospitals were in precarious financial condition at the start of 1989, and many other hospitals were financially vulnerable. One-third or more of Minnesota's hospitals with fewer than 50 beds had negative net income in each year from 1984 to 1987.

Using a standard of 30 minutes' maximum travel time for adequate access, the study revealed that about 19,000 Minnesotans in 14 counties currently have inadequate access to hospital services. Closing rural hospitals could leave additional Minnesotans without adequate access to hospital services.

Given the financial condition of Minnesota's small, rural hospitals and the importance of maintaining access to hospital services in rural communities, the state may need to provide limited hospital subsidies to ensure access in geographically isolated areas.

**S**mall rural hospitals in Minnesota are feeling the financial impact of major declines in inpatient hospital use and reimbursement constraints. Five rural hospitals ceased operations between 1985 and 1987. At the start of 1989, at least 12 hospitals were in precarious financial condition, and many other rural hospitals were financially vulnerable.

The weakening financial condition of small rural hospitals raises concerns for local communities, legislators, health care providers, and public health officials. A primary concern is that additional hospital closures could reduce access to care in rural areas.<sup>1</sup>

This article describes the findings of a recent Minnesota Department of Health study on the financial condition of Minnesota's rural hospitals and the impact of potential hospital closures on access to hospital services in rural areas.

### Methods

To assess the financial condition of the state's small rural hospitals,

we examined the financial performance of all Minnesota hospitals outside the Twin Cities metropolitan area. Net income, operating margin, and overall margin were reviewed for 1984 to 1987 (the most recent year audited financial data were available\*).

From this initial review, we targeted 33 hospitals for closer examination. Twenty-four of these hospitals reported a deficit in at least three of the four years from 1984 to 1987. The other nine hospitals had some combination of financial problems that merited concern, such as recent large losses, heavy reliance on outside subsidies, low utilization rates, cash flow problems, declining equity, or considerable debt.

For each of the 33 targeted hospitals, we studied 1984 to 1987 audited financial data on file with

the Minnesota Department of Health and preliminary 1988 financial data submitted by the hospitals. We also conducted telephone interviews with 32 hospital administrators (one declined to participate). Through this process, we identified 12 hospitals that appeared to be in precarious financial condition. Administrators of five of these hospitals thought their hospital was in imminent danger of closing.

Using a standard of 30 minutes' maximum travel time for adequate access to acute-care hospital services, we identified counties and communities that currently have inadequate access and additional communities that would have inadequate access if the 12 hospitals in precarious financial condition or the 33 financially stressed hospitals closed.

### Financial Condition of Rural Minnesota Hospitals

On average, Minnesota hospitals operated profitably from 1984 to 1987. The average overall margin for the industry was 3% each year. The median overall margin ranged from 3% to 4%. Patient care operations were somewhat less successful than total performance, as is typically the case. The average operating margin ranged from 0% to 1% in 1984 through 1987, while the median operating margin was a steady 2%.<sup>2</sup>

Minnesota's small and medium-size hospitals, nearly all of which are located in rural areas, had less favorable financial performance than larger hospitals both on patient care operations and on overall activity. (All but two of the

\*Net income is defined as total revenue less total expense, operating margin as net operating income divided by total operating revenue, and overall margin as net income divided by total revenue.



TABLE 1

Median operating margin by hospital size, 1984-1987

|      | All Hospitals | Small<br>1 - 49 | Medium<br>50 - 99 | Large<br>100 - 199 | Very Large<br>200 + |
|------|---------------|-----------------|-------------------|--------------------|---------------------|
| 1984 | .02           | -.004           | .022              | .020               | .037                |
| 1985 | .02           | .007            | -.012             | .019               | .042                |
| 1986 | .02           | .013            | .026              | .013               | .021                |
| 1987 | .02           | .002            | .025              | .023               | .021                |

Source: Minnesota Hospital Association, 1989.

TABLE 2

Median overall margin by hospital size, 1984-1987

|      | All Hospitals | Small<br>1 - 49 | Medium<br>50 - 99 | Large<br>100 - 199 | Very Large<br>200 + |
|------|---------------|-----------------|-------------------|--------------------|---------------------|
| 1984 | .03           | .027            | .036              | .040               | .064                |
| 1985 | .03           | .029            | .009              | .034               | .062                |
| 1986 | .03           | .034            | .038              | .030               | .047                |
| 1987 | .03           | .027            | .044              | .036               | .037                |

Source: Minnesota Hospital Association, 1989.

98 hospitals with fewer than 50 beds and two of the 26 hospitals with 50 to 99 beds are located outside the Twin Cities metropolitan area.) Tables 1 and 2 present the median operating margin and the median overall margin by hospital bed size in each year from 1984 to 1987. Half the small hospitals were losing money during this period.

Table 3 shows the number of Minnesota hospitals with negative net income grouped by hospital size. Again, the data for small, mostly rural hospitals reflect serious financial problems. Roughly one-third or more of Minnesota hospitals with fewer than 50 beds had a deficit in each year from 1984 to 1987.

### Characteristics of Financially Stressed Hospitals

The 33 financially stressed hospitals were split fairly evenly between the fewer-than-25-bed and the 25-to-49-bed categories (16 and 15, respectively). The remaining two hospitals have 50 to 99 beds. More than half of the state's fewer-than-25-bed hospitals were among the 33 financially stressed hospitals; just less than one-quarter of all 25-to-49-bed hospitals also qualified as financially stressed.

The 33 hospitals are distributed

throughout rural Minnesota. Southwestern Minnesota, which has many small hospitals close to each other, has the most financially stressed hospitals. The region with the highest proportion of financially stressed hospitals is the northwestern part of the state, followed by northeastern Minnesota.

Recent declines in inpatient utilization have hit the 33 financially stressed hospitals very hard. In 1987, average occupancy for these 33 hospitals was 15%, compared with an average occupancy of 42% for all Minnesota hospitals.

Twenty-one of the 33 financially stressed hospitals operate in conjunction with a nursing home unit. In several situations, the attached nursing home is subsidizing hospital

operations. Many of the financially stressed hospitals are also receiving subsidies from a city, county, or tax district to continue operating.

### Likelihood of Rural Hospital Closures

Predicting how many or which small rural hospitals may close in the near future is difficult. The future of a small rural hospital depends not only on the individual hospital's situation but also on changes in the larger health care system and in rural areas in general.<sup>3</sup>

The challenges for small rural hospitals are great. Demand for inpatient acute care is likely to remain low. Medicare DRG reimbursement will probably not improve substantially. The urban/rural differential may be reduced, but federal budget deficit pressures will most likely hold down overall Medicare reimbursement to hospitals.

Recruitment of nurses and physicians to rural areas is difficult, and many physicians in rural communities are nearing retirement. More than half of the 33 financially stressed hospitals are currently recruiting physicians, and many say their continued operation depends upon the success of their recruitment efforts. The Northern Lakes Health Care Consortium in Duluth reports that it is involved in the recruitment of 80 to 90 physicians for northeastern Minnesota alone. University of Minnesota Medical School faculty report that at least 200 physicians are currently needed in small communities

TABLE 3

Minnesota hospitals with negative net income by hospital size, 1984-1987

| Hospital size | Hospitals with negative net income/total hospitals |              |              |               |
|---------------|--|--------------|--------------|---------------|
|               | 1984   | 1985         | 1986         | 1987          |
| 0-49          | 31/91 (34%)  | 29/91 (32%)  | 31/94 (33%)  | 38/92 (41%)   |
| 50-99         | 6/23 (26%)   | 12/24 (50%)  | 3/25 (12%)   | 3/26 (12%)    |
| 100-199       | 1/20 (5%)  | 2/20 (10%)   | 5/22 (23%)   | 3/19 (16%)    |
| 200+          | 2/23 (9%)  | 1/23 (4%)    | 5/24 (21%)   | 7/22 (32%)    |
| TOTAL         | 40/157 (25%)                                       | 44/158 (28%) | 44/165 (27%) | 51/159* (32%) |

\*Financial reports were not available for each of the 167 hospitals for this analysis. A 1988 special survey conducted by MHA indicated that 56 of 165 responding hospitals had negative net income in 1987. Source: Minnesota Hospital Association, 1989.

throughout the state.

Hospital plants and equipment will continue to age and need upgrading. Many small hospitals are not funding their depreciation accounts, and they find it difficult to finance renovations and replacement of equipment either through retained earnings or borrowing.

Some small hospitals are experiencing cash flow problems. Reserves of some hospitals are quite low, and more than one administrator among the 32 interviewed said that any sizable unexpected expense could force the hospital to close.

On the positive side, some rural hospitals may be able to generate sufficient revenues from new types of services to remain viable. Hospitals' efforts to improve efficiency and service availability through joint hospital activities may pay off. The importance of most hospitals to their communities is so great that local subsidies may continue to be available to see some rural hospitals through difficult times.

## Access to Hospital Services in Rural Areas

Figure 1 shows the location of Minnesota hospitals outside the Twin Cities area. Using an average travel speed of 50 miles per hour, we plotted 30-minute travel time circles around every hospital.<sup>5</sup>

As shown in Figure 2, this analysis revealed nine counties that currently have pockets of inadequate access to hospital services. These counties, all in the northern part of the state, are Aitkin, Beltrami, Cass, Cook, Itasca, Koochiching, Lake, Lake of the Woods, and St. Louis. Clearwater, Pennington, Pine, Marshall, and Roseau counties also have small areas of inadequate access. About 19,000 Minnesotans in these 14 counties (0.4% of the state's population) currently must travel more than 30 minutes to reach the nearest hospital.

Figure 3 shows areas without adequate access if the 12 hospitals identified as being in precarious financial condition were to close, adding Fillmore and Norman counties to the list of counties with

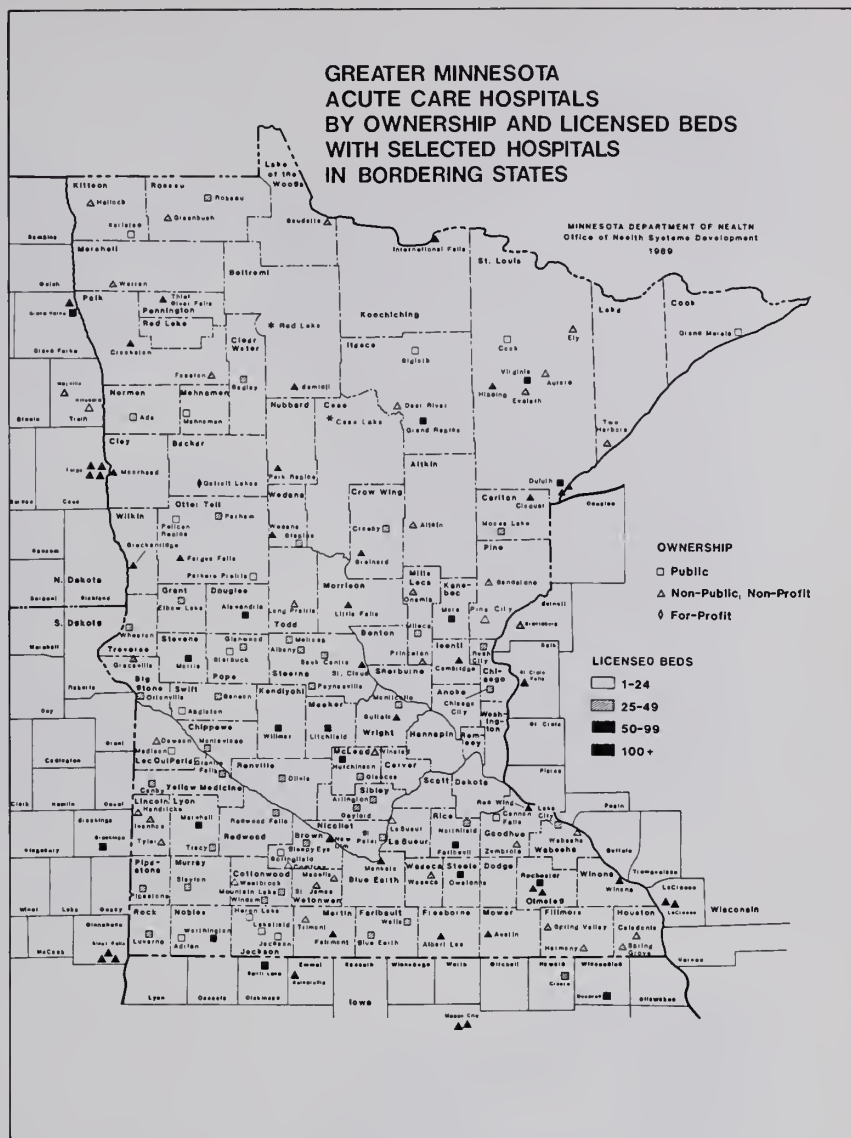


FIGURE 1 — Minnesota hospitals outside the Twin Cities metropolitan area, classified by size and ownership.

pockets of inadequate access. If those 12 hospitals were to close, 37,000 residents in 16 counties would be more than 30 minutes from a hospital. Closure of two hospitals, those in Grand Marais and Ely, would create immediate access concerns, because neither hospital has another hospital within 30 minutes' travel time. Loss of these two hospitals alone would account for approximately 11,000 additional residents with inadequate access. Numerous recreational visitors would also have inadequate access.

Most of the 33 financially stressed hospitals have another hospital within 30 minutes' travel

time. However, in some cases, the nearby hospitals are also financially stressed. In the event of closures in this group of hospitals, accessibility to hospital services for residents of these communities will depend a great deal on the status of neighboring hospitals. Figure 4 depicts the unlikely worst-case scenario, with all 33 financially stressed rural hospitals not operating.

Future analysis should address accessibility of specific services on a community-by-community basis in more detail, including services offered in non-hospital settings. Such analysis particularly needs to focus on those services in which timing is critical in terms of patient



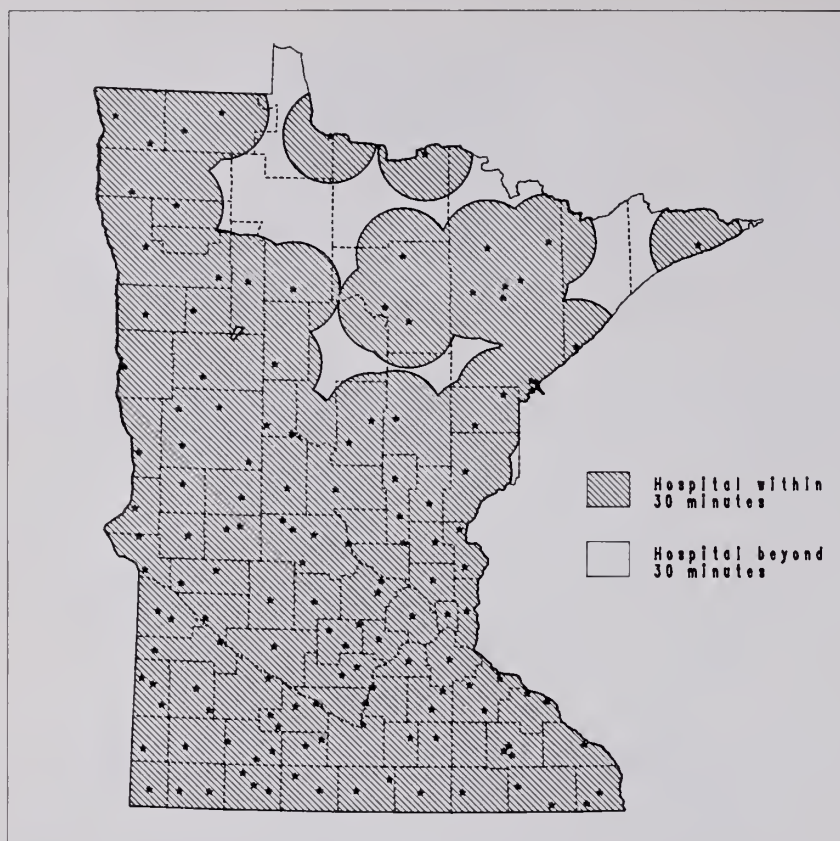


FIGURE 2 — Regions within 30 minutes of at least one of the 167 currently operating hospitals.

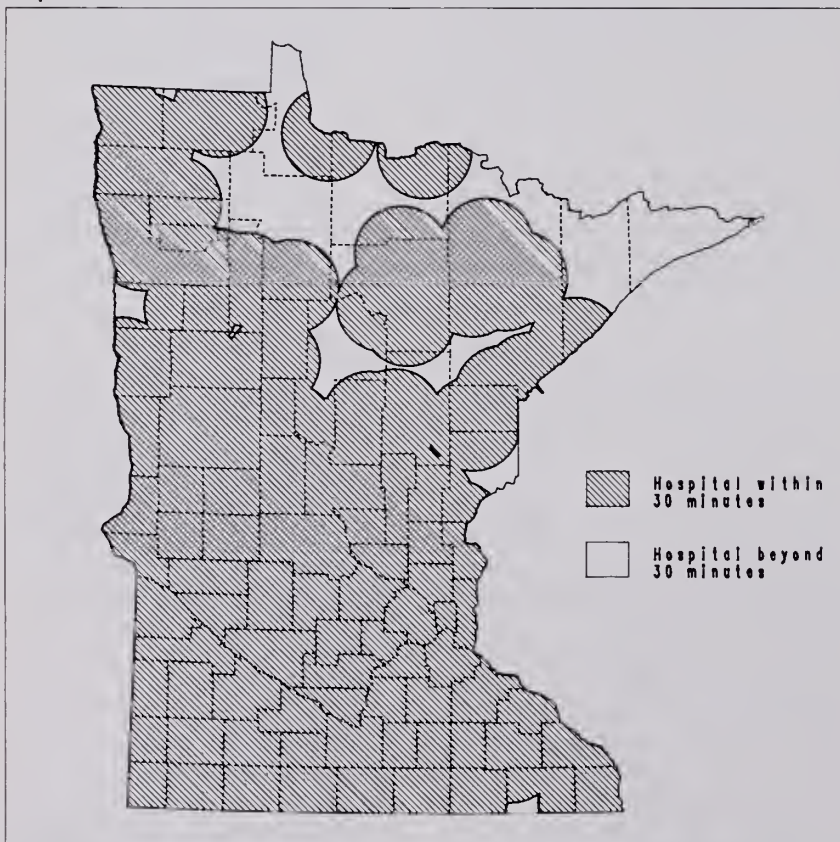


FIGURE 3 — Regions within 30 minutes of a hospital if the 12 hospitals in precarious financial condition were to close.

outcome, e.g., emergency services and obstetrics.

## Conclusions and Recommendations

The financial condition of Minnesota's small rural hospitals raises concern about possible hospital closures and their potential impact on access to hospital services. The state needs to continue monitoring the financial condition of rural hospitals and the availability of necessary services in rural areas.

Assessing the adequacy of emergency services and considering alternatives to hospital emergency room treatment should be a priority. Assessing shortages of health professionals and evaluating ways to increase incentives for rural practice should be another.

Rural hospitals and their local communities are taking steps to assess and meet local health care needs and strengthen hospital operations. Where local communities can maintain service availability, the state does not have a major role. It may be, however, that some areas of Minnesota are so sparsely populated that they generate too little demand for inpatient care for hospitals to be financially viable. In these circumstances, limited hospital subsidies may be necessary to assure continued access. Such subsidies should be structured to retain incentives for efficient hospital operation and maximum financial support from the surrounding community.

The state Legislature could accomplish this goal by establishing a hospital subsidy fund. Eligibility for funds would depend on the impact of hospital closure on geographic access to hospital services, the hospital's degree of financial stress, receipt of other grant funds, exhaustion of other revenue sources, and a clear commitment of local funds.

In order to help rural hospitals adapt to the unprecedented rate of change, the Legislature could also establish a grant program to support such activities as planning or implementing hospital closures or conversions, recruiting health



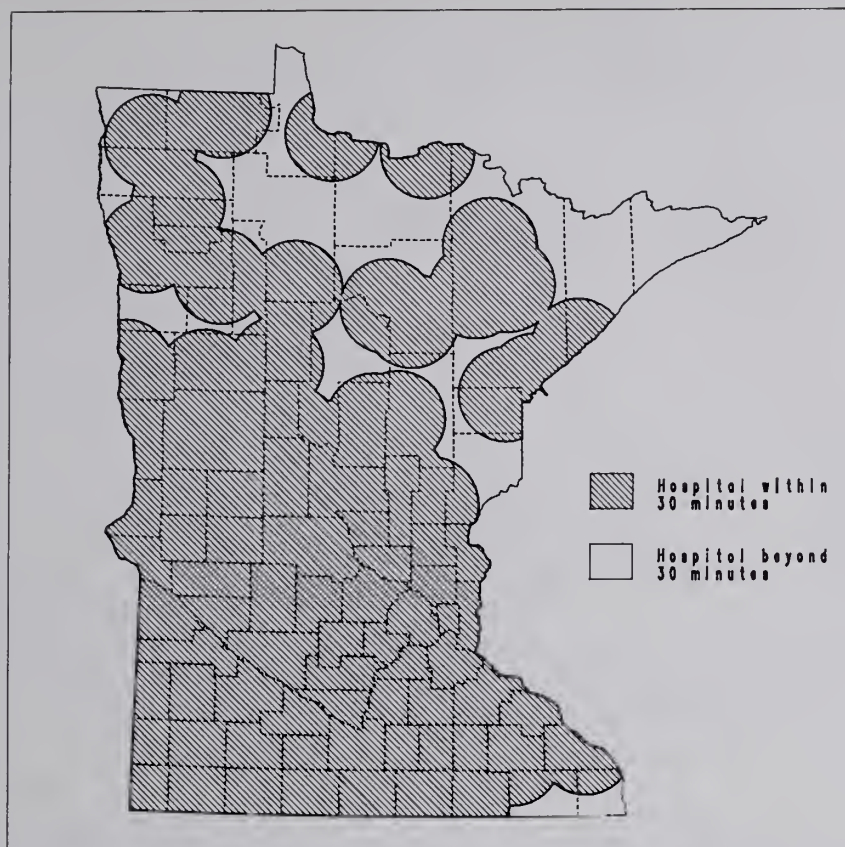


FIGURE 4 — Regions within 30 minutes of a hospital if all 33 financially vulnerable hospitals were to close.

professionals, planning or implementing joint activities with other hospitals, or developing new or different service offerings. Eligibility for these one-time rural hospital transition grants would be related to such factors as maintaining geographic access to needed services and improving operating efficiency.

*This article is based on "Access to Hospital Services in Rural Minnesota," a March 1989 report from the Minnesota Department of Health to the Minnesota Legislature. InterStudy, a policy research firm in Excelsior, Minnesota, made major contributions to the study.*

*Marianne Miller is director of the Health Economics Program at the Minnesota Department of Health.*

*Michelle Casey is senior analyst in the Health Economics Program.*

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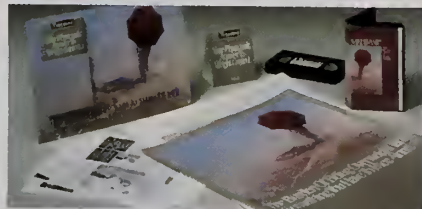
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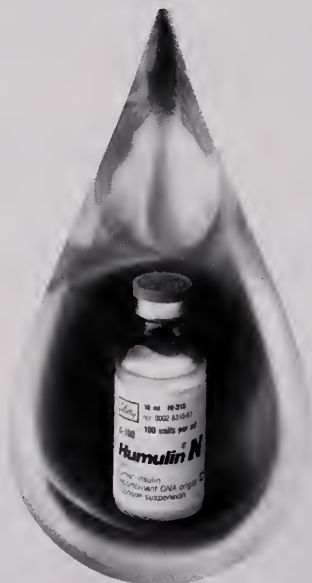
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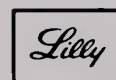


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In Diabetes Care

# Medical Records Management

*Prepared by MMA Legal Staff*

**T**he Medical Practices Act lists a number of grounds for discipline of physicians, but improper management of medical records has the dubious honor of being the only one that involves simple paperwork. A lot of confusion exists as to what is or should be included in a medical record, who has access to it, and how long the record should be retained. This article addresses each of these issues as they apply to the medical office or clinic situation. Different requirements apply to hospitals and are not discussed here.

## **Purpose**

The existence and contents of medical records are governed by the two primary reasons for having them in the first place: 1) to provide better treatment of a patient, and 2) to provide information and proof in the event questions arise about the treatment of the patient, or if the patient has some other need for the information.

The physician can provide better treatment when not limited to relying on his or her memory of the patient's complaints, symptoms, test results, and treatment. Also, if the patient seeks treatment from another physician, the new physician can review the record for a medical history of the patient. To facilitate better care and meet the many needs of the patient and physician, the medical record should be as complete as possible in its information relating to the patient.

Likewise, questions regarding the quantity and quality of treatment can arise in any number of settings,

e.g., in a lawsuit, from a third-party payer, in a utilization or peer review, or in a Board of Medical Examiners investigation. For example, the Medical Practices Act lists one ground for discipline as follows: "Improper management of medical records, including failure to maintain records, to comply with a patient's request made pursuant to section 144.335, or to furnish a medical record or report required by law." The medical record is a way of preserving information about a patient. As someone once noted, an oral statement is just someone's word; but if that statement is written down, it becomes the truth. The written record provides invaluable support for the physician's position in any of these review situations. For this purpose, the medical record should provide the most complete information possible about the patient's condition and the physician's reasoning, diagnosis, and treatment of the patient.

## **Content**

The content of the medical record is governed by principles of sound medical practice. The Access to Health Records law and rules governing Medical Assistance provide suggestions on the content required by state law and the Medical Assistance system, respectively. In addition, George B. Martin, M.D., chair of the Minnesota Board of Medical Examiners' Discipline Committee, has published suggestions on documentation for a medical office or clinic to assist a physician in providing top-quality patient care and in withstanding any external review. Based on

these sources, a sound medical record should include the following:

1. The patient case history and complaints.
2. A description of the oral or physical examination; results, including positive and negative findings if appropriate; and studies with results when known. (The results of all diagnostic tests and examinations, including laboratory reports and X-rays, should be part of the medical record.)
3. The working diagnoses, assessments, or evaluations.
4. The plan of therapy or treatment and the prognosis.
5. Quantities and dosages of any drugs prescribed, ordered, and/or administered, including refills.
6. The patient's progress, response to treatment, any change in treatment, and any change in diagnosis.
7. Copies of consultation reports.
8. Dates of hospitalization.
9. A summary of surgical procedures.

In addition, each page of the record should name or otherwise identify the patient, and each entry in the record should be signed and dated.

In his article, Martin lists several additional items he finds immensely useful:

1. An easily accessible summary list of all current medical problems.
2. An easily accessible listing of all current medications or treatment modalities.
3. For high-risk and/or long-term therapy regimens, such as surgery, chemotherapy, and prolonged controlled substance therapy—

*continued*

- ▶ A statement of the failure or inappropriateness of other, lower-risk modalities.
- ▶ A record of all referrals and their results.
- ▶ A statement that the relative risks and benefits, expectations, and alternatives have been discussed with the patient either orally or by handout and that all questions have been addressed.
- ▶ A statement of a reevaluation and follow-up plan.

These guidelines are designed to meet the purposes of the medical record: to provide the best treatment for the patient and to provide information and proof of care.

### Access

As a general rule, the consent of the patient is required for anyone to access the medical record. Practice and custom provide that the physician, as owner of the record, has access to it, as do the physician's employees who have a reason to access the record and other health care professionals providing concurrent care. Various laws provide government officials access to all or a portion of the records. In addition, court orders, search warrants, and subpoenas may afford access to medical records. Only access to the patient is discussed here, since it is the only access issue specifically identified as a ground for discipline in the Medical Practices Act.

The patient is specifically given the right to a copy of the medical record under the Access to Health Records law. That law provides that, upon request, the physician must give the patient "complete and current information possessed by that provider [physician] concerning any diagnosis, treatment, and prognosis of the patient." This information includes not only a copy of the medical record, but also "laboratory reports, X-rays, prescriptions, and other technical information used in assessing the patient's health condition." If the patient so requests, the physician may limit the copies to that part of the medical record relating to a condition specified by the patient; or, with the patient's consent, a

summary of the record may be furnished.

The patient does not have an absolute right to see his or her entire file. The law specifically provides that the physician may exclude "speculations about the patient's health conditions," except for information necessary for the patient's informed consent. (This may be extremely difficult to determine, and great caution should be exercised in withholding medical information.) Likewise, non-medical documents in the patient's file need not be provided to that patient. Such items as personal letters, notes about the patient, billing statements, and other items that do not contain information pertinent to the diagnosis, treatment, and prognosis of the patient are not a part of the medical record, even if included in the patient's file.

One other caveat is presented in the law: A physician is not required to give the information to the patient if the physician reasonably determines that the information "is detrimental to the physical or mental health of the patient, or is likely to cause the patient to inflict self harm, or to harm another." In these circumstances, the physician should give the medical record to another physician or some other third party for review and possible release to the patient.

### Retention/Disposition

At some point, storage becomes tight and the clinic or medical office must rent more space, microfilm some records, or dispose of some files. To provide patients with the greatest access to information, files are saved as long as possible. However, after a period of time questions are less likely to arise.

The Minnesota Legislature has established statutes of limitations for how long after an event someone may sue about the event. These statutes may be used as a guide to medical record retention, providing a minimum time for keeping the records. The medical record can provide strong proof of what happened at the time the record was made. It may prove the reasonableness of the physician's

action, the presence of informed consent, or simply clarify matters in a non-medical lawsuit, such as workers' compensation or automobile accident liability.

A six-year statute of limitations is likely to be the longest to involve medical matters. Another year should be added to this to allow annual thinning of the files without fear of discarding a medical record that should have been retained for another six months. These periods of time generally can be measured from the last day the patient was seen or treated by the physician, although if the condition is hidden, the time might be measured from when the patient discovered or reasonably should have discovered the condition. Following the statutes of limitations, medical records should be retained as follows:

**Adults:** Records of patients who were adults (age 18 or older) when first seen, other than those of obstetrical patients, should be retained for at least seven years.

**Minors:** Records of minors (and the mother if she was an obstetrical patient) should be retained for at least 14 years, or until the patient reaches age 26, whichever is longer. (The statute of limitations regarding minors is somewhat confusing; it provides that the statute of limitations period does not begin until one year after the patient ceases to be a minor or for seven years. The statute does not specify whether the longer or shorter of the two time periods actually governs, so caution advises using the longer of the two. To this period is added the general statute of limitations period of six years and the one additional year to allow for safe annual record disposition.)

**Insane or imprisoned people or certain aliens:** Records of insane or imprisoned people or aliens from a country at war with the United States should be retained until eight years after the patient ceases to be insane, imprisoned, or such an alien, but need not be kept more than 12 years.

**Decedents:** Records of decedents should be retained for at least four years after death.



**Living wills:** If a physician has accepted only a copy of the living will, then the copy may be treated like the rest of the medical record. If, however, the original living will has been placed in the medical record, then it should be retained until the patient dies or consents to having the living will destroyed. It is a crime to destroy a living will without the patient's consent. In addition, if an original living will is accepted and the patient later consents to its destruction, this consent should be noted and kept to protect the physician from later challenges.

Some medical offices use a standard brochure or a bulletin board to inform patients about the medical practice and its physicians. The medical record retention/disposition policy could be included, stating something like the following: "This office will keep your (your child's) medical records for approximately \_\_\_\_ years after we stop seeing you (your child) as a patient. If you move or select another doctor during that time, you may wish to notify us so that we can forward the records to your new doctor instead of discarding them."

The contents and retention of a medical record and access to it present problems every day in medical offices. Patients are concerned with their records, and physicians need to be concerned as well. Improper management of the records can result in discipline or liability for the physician involved, and, therefore, these problems need careful attention.

*Material in this article is based on the interpretation of several different state laws and rules. The article offers a general discussion of the topic and is not intended as specific legal advice. Readers are encouraged to review the relevant statutes and rules should questions arise. Or, for further information regarding specific concerns about medical records, please call Karen Marty or Bob Elkema at the Minnesota Medical Association, (612) 378-1875.*

# RURAL HEALTH!



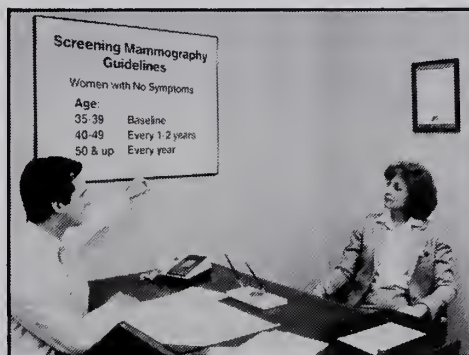
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Thanks to an AMA brief, persons with infectious diseases, including AIDS, are protected under the federal law prohibiting discrimination against the handicapped. Thanks to an AMA

brief, the Supreme Court held that Health and Human Services regulations affecting physician services under Medicare can be challenged in federal court. And thanks to an AMA brief, the constitutionality of some medical liability tort reform legislation—one possible solution to the professional liability problem—has been upheld at the state level.

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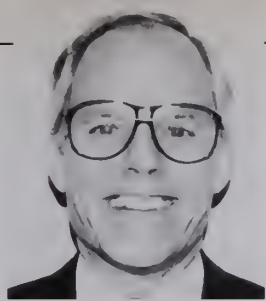
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ROBERT D. CHRISTENSEN, M.D.

## PRESIDENT'S LETTER

# Rural Health's Road to Recovery

**S**ince a 1986 MMA survey diagnosed rural health care as heading for a crisis, the MMA has been urging state leaders to work together to remedy the underlying problems. Recently, we have made significant progress. Momentum is building to address issues, such as low reimbursement for Medicare and Medical Assistance, that have brought rural health care to the brink of crisis.

Although it's far from perfect, the budget reconciliation bill passed by Congress in November was a major victory for Minnesota and for the states that joined us in The Geographic Coalition. This year, the MMA and the Utah State Medical Association co-founded The Geographic Coalition to urge reform of the geographic disparities in reimbursement for Part B Medicare. With one of the lowest Medicare reimbursement rates in the nation, it's not surprising that many rural Minnesota towns have a severe shortage of physicians and other health care providers. A recent survey by the Minnesota Hospital Association found that 76 percent of Minnesota hospitals are trying to recruit health care workers. Some hospitals have been recruiting for as long as two years and have spent as much as \$50,000 on the search for a single physician.

Relief for rural Minnesota is now in the pipeline. Passage of the reconciliation bill assures that eventually there will be a more equitable Medicare reimbursement system based on the resource-based relative value scale (RBRVS). The main goal of The Geographic Coalition

has been accomplished, although unfortunately the new system will not be implemented nearly as soon as we hoped. The MMA advocated implementation of the RBRVS by January 1991 with a three-year phase-in period. The bill provides for implementation of RBRVS beginning in 1992 with a five-year phase-in period. The MMA advocated that the geographic cost of practice adjustment include only overhead costs such as employee salaries and benefits and supplies and equipment. The bill provides that a blend of overhead and cost of living be used to determine the cost of practice adjustment. This will still mean a great improvement in the Medicare reimbursement level for Minnesota, especially in rural areas.

Yet, with reform of Medicare reimbursement approximately seven years away, it is especially important to take aim at some of the other problems that plague Minnesota's rural health care system. The low reimbursement rate for Medical Assistance (MA or Medicaid), when combined with that of Medicare, can be devastating to a practice that serves a high percentage of Medicare and Medicaid patients. Some clinics have been forced to limit the number of new Medical Assistance patients they accept or face severe financial difficulty. After meeting with MMA physicians to discuss the impact of Medicaid on the health care system, Governor Rudy Perpich decided to name a task force to explore the issue of reimbursement for Medical Assistance. We are urging the governor and state legislators to support a long-overdue

increase in Medicaid reimbursement, which is currently based on 50 percent of the 1982 usual and customary fees, and to oppose mandatory Medicare assignment.

Another step forward was the reactivation of the MMA's Rural Health Task Force, chaired by James F. Knapp, M.D., Detroit Lakes. Currently, the task force is participating in the Rural Health Coalition, a broad-based group of organizations dedicated to preserving access to health care in rural Minnesota.

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**"We must find ways to encourage medical students to spend part of their residency in a rural location and to consider serving there."**

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In October, the coalition sponsored a forum to discuss problems in rural health and to develop creative solutions. Forum participants suggested looking at incentives used in other areas to attract physicians and nurses to rural areas. For instance, some communities offer financial assistance to help pay for the medical education of a physician willing to practice there, and federal, state, and local governments are beginning to consider tax credits to physicians who practice in rural areas. In remote areas of Montana, the Health Care Financing Administration is conducting a pilot program in which five rural hospitals, designated as

*continued*



"medical access facilities," provide short-term acute care by mid-level practitioners under periodic supervision by physicians. The Rural Health Task Force is taking a careful look at this model and considering whether it would work in isolated areas of Minnesota without compromising quality of care.

In my next letter, I will discuss the MMA's December forum on the controversial new State Health Plan. Many physicians were disappointed to be left out of the state's preferred provider network for the health plan that replaces Aware Gold Limited as a health insurance option for Minnesota's 53,000 state employees. About 90 percent of Minnesota physicians participated in Aware Gold, but only 60 percent to 70 percent of physicians in Greater Minnesota and about 50 percent of those in the metro area were invited to join the new State Health Plan. In some areas of Minnesota, the new program is the only one offered to state employ-

ees. Some counties don't have a clinic or physician in the plan. This means a substantial loss of choice and possibly reduced access to health care in rural Minnesota.

Finally, the MMA is asking the American Medical Association for assistance in solving some of the problems facing rural health care. At the AMA Interim Meeting in December, the Minnesota delegation to the AMA House of Delegates introduced a resolution asking the AMA to study the concept of medical access facilities and to review legislation that would expand the pilot program in Montana to a national program with 10 to 15 demonstration projects. MMA resolutions also asked the AMA to study the problem of metropolitan versus rural geographic maldistribution of physicians and to develop recommendations for medical schools to increase medical student and resident interest in rural medical practice.

Working through the medical

association, we are making every effort to preserve rural access to care. As individual physicians, we also have opportunities to stimulate interest in rural health care. It's important to stress the positive aspects of a rural practice. Practicing in a small town offers personal rewards that are often overlooked. Rural physicians fill an important and respected role in their communities. They know their patients well and watch babies they've delivered grow up. We must find ways to encourage medical students to spend part of their residency in a rural location and to consider serving there.

As we review our recent progress, the prognosis for rural health care appears hopeful. This year could be the turning point that sets rural health care back on the road to recovery. ■



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## Selecting a Financial Adviser

*John M. Murphy, CFA, CPA, J.D.*

**F**ew physicians have backgrounds in finance or a significant interest in learning the intricacies of the tax laws or investment markets. Many physicians do, however, begin their careers with substantial student loans and soon incur additional expense to establish a practice, buy a home, and raise a family.

Typically, a physician's personal financial situation becomes more complicated and important at the same time as work and family demand more of the physician's time. Faced with the complexity of today's financial world and limited available time, a physician will often seek professional financial advice.

Ideally, your financial adviser would coordinate all areas of your financial situation—manage your investments, plan ways to minimize your income taxes, and review your insurance and estate planning. Your adviser could assist you in financial decisions such as choosing the most appropriate type of mortgage financing for your home, deciding how to pay off student loans, implementing retirement plans, or designing investment strategies to fund college education costs for your children. Your adviser would also meet with you periodically to discuss changes in your personal situation and financial objectives and would monitor the performance of your investments and recommend changes to take advantage of investment opportunities.

A number of people in the financial services industry would be pleased to provide you with personal financial advice. Providers

include bankers, insurance agents, accountants, stockbrokers, financial planners, and attorneys. The type of adviser appropriate for you depends on your objectives, experience, and background.

### What Do the Credentials Represent?

A number of organizations issue credentials and professional designations to individuals providing personal financial advice. Understanding the credentials can be helpful in determining the background and suitability of an individual whom you are considering retaining as an adviser.

#### Chartered Financial Analyst (CFA):

The CFA designation is awarded to individuals who complete a three-year program of tests covering investments, financial analysis, and portfolio management. Two years' experience in investment decision making is also required.

#### Certified Financial Planner (CFP):

The CFP is someone who has completed a series of exams testing broad knowledge in the areas of insurance, investments, retirement planning, income taxation, and estate planning.

#### Chartered Financial Consultant (ChFC):

The ChFC designation is offered by the American College, which provides continuing education to insurance agents. The ChFC is usually an extension of the CLU (Chartered Life Underwriter) designation, which is earned by life insurance professionals. To receive the ChFC designation, candidates must pass 10 exams relating to financial planning.

#### Certified Public Accountant (CPA):

A CPA has completed required course work in accounting and an examination consisting of accounting, taxation, auditing, and business law concepts. Two years' work experience with a public accounting firm also is required.

### How Do Financial Advisers Get Paid?

It is very important for you to determine how your adviser is being compensated. The way in which your adviser is being paid often affects the type of advice you will receive. Listed below are the three ways compensation is typically structured.

**Commission only:** Individuals working under this arrangement may prepare a financial plan for you at no charge. They expect to be compensated through the sale of insurance or investment products.

**Commission and fee:** Compensation by fees and commissions is a common arrangement with financial planners. You should know that there is never any obligation to purchase the products recommended by any adviser.

**Fee only:** This is typically the arrangement with accountants, attorneys, and many investment advisers. If the compensation structure is fee-only, you should ask how the investment and insurance recommendations will be implemented.

If the adviser sells products, be aware of the potential conflicts of interest and recognize when the individual has crossed the line from being an adviser to a salesperson.

## Important Questions to Ask

Your initial meeting with a prospective adviser should include a discussion of your financial objectives and how the adviser can help you achieve those goals. As a prospective client, you will need to have some important questions answered to evaluate the services offered by the adviser.

► Inquire about the adviser's work experience and educational background. If the adviser's background does not appear to be consistent with providing comprehensive financial advice, ask why he or she chose to become a financial adviser. You should be confident that the individual will be able to provide you with beneficial and comprehensive financial advice.

► Ask how the adviser is paid and obtain an estimate of the fee. Ask for a description of the services you will be receiving. In general, the fee should depend upon the complexity of your situation and the nature of your existing investment portfolio (if any). Don't make the

mistake of taking the low bidder. You get what you pay for, as with any professional service.

► Review a copy of the adviser's brochure and/or ADV form. The ADV is a form required by the Securities and Exchange Commission from an investment adviser. The form discloses a significant amount of information about the adviser and the nature of the adviser's practice. The brochure must include all the information that is in the ADV, but it usually is in a more readable format. When reviewing the ADV and the brochure, you should pay particular attention to the adviser's investment philosophies, practice structure, fees, and potential conflicts of interest.

► Inquire about the nature of the adviser's client base. It is important that the adviser has clients in financial situations similar to your own. A financial adviser who works primarily with corporate executives of Fortune 500 companies is less likely to understand the financial situation of a physician just com-

pleting a clinical fellowship.

► Ask the adviser for client references. These references should be the names of clients in situations similar to your own.

Be aware that an individual who spends a disproportionate amount of time talking about your insurance programs or investment products is more likely to be concerned with generating sales commissions rather than helping you achieve your financial goals.

It is very important that you are comfortable with the adviser. You should feel that you could tell this individual everything there is to know about your financial life. In addition, you should be confident that your adviser will be placing your interests first. Selecting the right financial adviser and establishing a relationship of mutual trust can be very important steps in achieving your financial objectives.

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*John M. Murphy is a financial adviser with Capital Management Associates, Inc., a Registered Investment Advisory firm based in the Twin Cities.*



## RURAL DOCTOR DROUGHT

Seventy-eight percent of rural Minnesota hospitals are seeking physicians, according to a Minnesota Hospital Association (MHA) survey, and rural Minnesota is in need of at least 200 physicians, according to MHA and Minnesota Medical Association officials. The chief contributing factor, the officials said at a November news conference, is an inequitable Medicare and Medicaid reimbursement system. Both associations have been working with the state's Legislature and medical schools to find ways to encourage rural rotations for medical students, continue support for the University of Minnesota's Rural Physician Associate Program, increase the number of family practice residencies, and provide financial incentives to practice in rural Minnesota.

## NURSING HOME NEGLECT, ABUSE

Spurred by a sharp rise in complaints of deaths related to abuse or neglect in Minnesota nursing homes, state Health Commissioner Sister Mary Madonna Ashton in October established a 15-member task force to investigate the problem.

Complaints of 11 deaths in Minnesota's 446 nursing homes were reported in the 12 months ending in June 1987, and 15 were filed the next year. That number jumped to 37 for the period ending in June 1989 (47 percent were found to be valid), and 17 additional complaints were registered from July through October 1989.

Although the task force will study both abuse and neglect, Ashton said neglect—which includes accidents in nursing homes, failure to monitor residents who need special care, and failure to call for medical help immediately when a resident needs assistance—is the bigger problem.

Abuse or neglect complaints are filed on about one-eighth of 1 percent of all Minnesota nursing home deaths.

## INSURANCE FOR PUBLIC EMPLOYEES

State officials announced that a new statewide health plan will be available to all public employees except those who work for the state. The Minnesota Public Employees Insurance Plan (PEIP) became effective January 1 and was implemented to stem skyrocketing health care costs in rural and small-town Minnesota,

places that often lack enough health care competition to curb costs.

The health plan was created by the 1987 state Legislature and, according to state Employee Relations Commissioner Nina Rothchild, was designed to establish a large enough group of health care consumers to spread costs broadly, thereby softening price increases to any individual group member. Although the plan was established by the state, it will be self-supporting and not paid for by taxpayers.

Officials said 183,000 state employees, retirees, and their families will be eligible to enroll in PEIP, and the plan needs 5,000 to 6,000 members to be financially strong.

## ORTHOPEDIC TRAINING CENTER

Metropolitan-Mount Sinai and Hennepin County medical centers in November teamed together to open a state-of-the-art Orthopaedic Learning Center on their campuses in Minneapolis. The center, the first major orthopedic training center of its kind in the United States, features a 2,024-square-foot laboratory, where 56 surgeons at a time can hone their skills with simulated bone material and cadavers. A tele-

communications system complete with overhead cameras and microphones broadcasts surgeries to a 109-seat auditorium adjacent to the laboratory at Metropolitan and a 250-seat auditorium in HCMC. Surgeons can communicate with audiences in the auditoria, and vice versa.

The center was a combined effort of the two medical centers and the University of Minnesota Medical School.

## TRYPTOPHAN DANGERS

Mayo Clinic immunologist Gerald Gleich, M.D., and three other physicians were the first to recognize a link between use of the amino acid L-tryptophan and elevated eosinophil levels. The resulting condition, called eosinophilia-myalgia syndrome, is also marked by muscle inflammation caused by eosinophil invasion, and can range in severity from soreness to serious organ damage and death. As of December 7, 737 cases had been reported nationwide (55 in Minnesota), with one confirmed death.

The U.S. Food and Drug Administration has recalled products containing tryptophan, which include medicine for insomnia, premenstrual syndrome, depression and stress reduction, attention deficits in children, and

weight loss. People are cautioned not to use these products until it is determined whether the problem is with the amino acid itself, is due to an impurity introduced during processing, or stems from a sensitivity to the amino acid in certain individuals.

## **CHIROPRACTORS SING THE BLUES**

A U.S. District Court judge on October 31 dismissed a complaint by four chiropractors against Blue Cross and Blue Shield of Minnesota (BCBSM). The complaint—by Jerrold Wildenauer, Steven B. Ross, Lori Robbins, and Thomas Asbel—charged that a 1987 Blue Cross cost-containment program for chiropractic care to its Aware Gold customers violated federal antitrust law. The program included a 22-visit annual limit to chiropractors in the Aware Gold network and an appropriateness review. The plaintiffs contended that BCBSM was trying to eliminate chiropractors as competition to physicians.

Judge Paul A. Magnuson ruled that as a purchaser of health care services, BCBSM was free to make its own decisions and that those decisions had not violated antitrust laws. Magnuson wrote in his decision that the chiropractors failed to prove a conspiracy or that BCBSM's actions drove them out of the health care market.

## **DISABILITIES RESEARCH CENTER**

The University of Minnesota has received a five-year \$4 million federal grant to develop a national research and training center to explore how chil-

dren and adolescents with disabilities develop socially and psychologically. One of the projects slated for 1990 is a study of 650 children with diabetes, cystic fibrosis, spina bifida, or mental retardation to determine how they interact with others and how they can best lead productive lives.

## **BME EVALUATION**

The Board of Medical Examiners has appointed a task force to study its disciplinary process. The Medical Practices Act was amended in 1985, giving the BME additional powers, and the task force will review and evaluate those changes.

The BME says input will be sought from consumers, physicians licensed by the BME, defense lawyers, the Attorney General's office, insurance carriers, and employers. The task force will also compare the disciplinary process used for physicians with that used for lawyers and will gather and assess information describing the experience of other states.

## **OUTCOMES STUDY**

Physicians Health Plan of Minnesota (PHP) is participating in a research effort intended to develop a means for evaluating the outcomes of care delivered to members who have specific medical conditions.

The Medical and Therapeutics Outcomes Project, which is being led by United HealthCare Corporation, PHP's parent company, will draw upon a large historical data base, including PHP members' pharmacy and medical claims information. In addition, individuals

included in the study will be surveyed regarding their current health status following treatment. PHP plans to study hypertension first, with a survey planned for this winter.

## **AID FOR NURSING STUDENTS**

Nineteen Twin Cities hospitals and Minnesota's four-year nursing programs are joining forces to increase the number of registered nurses who graduate with baccalaureate degrees.

The hospitals are making available \$240,000 in grant money to qualified colleges and universities in the state. The schools will provide matching funds. According to program sponsors Health Employers, Inc., and the Minnesota Association of Colleges of Nursing, the grants should increase enrollment in four-year nursing programs by 64 students in 1989-90 and 96 students in 1990-91.

Approximately 30 percent of employed nurses held a baccalaureate degree in 1988. Estimates by the federal government project a national shortage of 257,000 baccalaureate-prepared registered nurses by the year 2000. Within Twin Cities hospitals, approximately 5 percent of all nursing positions are unfilled.

## **UNITED HEALTHCARE PRESIDENT**

The Minnetonka, Minnesota-based United HealthCare Corp. in November named William W. McGuire, M.D., as its president. He replaced Robert Ditmore, who resigned and will remain on United's board of directors. McGuire is a

pulmonologist and former Peak Health Care executive. United manages several dozen HMOs and other health care organizations nationwide, among them Physicians Health Plan and Share Health Plan, Minnesota's largest and fourth-largest HMOs, respectively.

## **NATIONAL AIDS DIRECTOR**

Eric Engstrom, executive director of the Minnesota AIDS Project since 1985, will leave this month to become executive director of the National AIDS Network in Washington, D.C. The National AIDS Network oversees 650 community AIDS service and education organizations nationwide.

## **MEDICARE HIKE**

Insurance premiums for patients covered by Medicare, as predicted, will be \$29 a month this year, up from \$27.90 in 1989. As established by Congress, Medicare beneficiaries must pay 25 percent of Medicare Part B (physician fees) costs; the remainder is paid by taxpayers. Medicare's catastrophic insurance premium, which is not included in the general premium, rose from \$4 in 1989 to \$4.90 this year.

## **FOLIC ACID & SPINAL DEFECTS**

Women who take vitamins containing folic acid during the first six weeks of pregnancy are much less likely to have babies with spinal column, or neural tube, defects, according to a study in the November 24 *Journal of the American Medical Association*. Dr. Aubrey Milunsky and colleagues at the Center for Human Genetics at the



Boston University School of Medicine studied 22,776 women over three years. Babies with spinal column defects were born at a rate of 0.9 per 1,000 births to women who took folic-acid-containing multiple vitamins, the authors found, and at a rate of 3.3 per 1,000 among women who did not take a supplement. The researchers stressed that the effectiveness of such supplements is limited to the first six weeks of pregnancy, when fetal organs are forming.

### X-RAY DETECTION OF ALZHEIMER'S

Aided by a computer, physicians can now detect Alzheimer's disease, schizophrenia, and other mental disorders using a new X-ray technique called SPECT, according to researchers.

Frederick J. Bonte, M.D., and colleagues at the University of Texas Southwestern Medical Center in Dallas, reported that they accurately diagnosed Alzheimer's disease in 150 of the 170 dementia patients they have studied. Their method, reported in November at the 75th scientific assembly of the Radiological Society of North America in Chicago, uses a radiation-emitting chemical that settles into brain tissue in direct proportion to the amount of blood flow to that area of the brain. Through SPECT—single photon emission computed tomography—physicians can detect the brain blood flow abnormalities characteristic of Alzheimer's.

SPECT can contribute much more significantly to the diagnosis of Alzheimer's disease than CAT scans and MRI and at

a lower cost. The technique costs approximately \$450, compared with \$800 for a CAT scan and \$1,000 for MRI.

### HEARTFELT RISKS

► Two recent studies pointed an accusatory teaspoon at two types of coffee—decaffeinated and percolated—for raising cholesterol levels. Study results presented at the American Heart Association's annual meeting in November by H. Robert Superko, M.D., of Stanford Clinic's Lipid Research Clinic, indicated that drinking decaffeinated coffee elevates low-density lipoprotein, or LDL, by an average of 7 percent, which translates into a 12 percent increase in the risk of heart disease.

In a separate report in the November 23 *New England Journal of Medicine*, researchers found that coffee containing caffeine, when brewed using a filter, does not raise cholesterol levels. They found, however, that percolated coffee raises cholesterol levels. Authors Annette A.A. Bak, M.D., and Diederick E. Grobbee, M.D., of Erasmus University Medical School in the Netherlands, found that people who drank percolated coffee for nine weeks had a 10 percent elevation in cholesterol, which translates into a 20 percent increase in risk of heart disease.

► A study in the same *New England Journal* found that very low levels of carbon monoxide—such as those found in a roomful of cigarette smokers—can initiate chest pain in people with heart disease. The study's authors, Elizabeth N. Aldred of the Harvard School of Public

Health and colleagues, determined that heart disease patients who had inhaled carbon monoxide before taking a treadmill test suffered chest pain due to oxygen shortage sooner than when they had not inhaled the gas.

The researchers found that the level of carbon dioxide that may be hazardous to heart disease patients was about the same as the level permitted by the federal Clean Air Act.

► A study released in November by the National Heart, Lung, and Blood Institute showed that alcohol—even when consumed in low levels—increases the risk of heart disease by enlarging the left ventricle. The study of 1,968 men and 2,505 women aged 17 to 90 and participants in the Framingham Heart Study, showed that even three or four drinks a day can increase risk—especially in those already at risk for heart disease.

### CANCER SUPPORT GROUPS

Among women with breast cancer that had spread, those who belonged to a psychotherapy support group lived twice as long as women who didn't participate in such groups, according to research published in the October 14 issue of the British medical journal, *The Lancet*. William Spiegel, M.D., a psychiatrist at Stanford University, and colleagues randomly assigned 86 women with metastatic breast cancer to a therapy group or a control group that received no psychotherapy. After a year, the women in the support group reported less depression, stress, and pain than the women in

the control group, and the support group members lived an average of 37 months from the beginning of the study, compared with 19 months for the other women.

### CPR GUIDELINES

Revised guidelines for cardiopulmonary resuscitation (CPR) published in the November 17 *Journal of the American Medical Association* assess the risk of disease transmission during CPR.

Issued by the Emergency Cardiac Care Committee of the American Heart Association, Dallas, Texas, the new recommendations emphasize that there are no known cases of transmission of hepatitis B virus or human immunodeficiency virus from mouth-to-mouth resuscitation. The committee acknowledges there is a "theoretical risk" of such infection if either rescuer or victim has a cut in or around the lips or inside the mouth that may result in the exchange of blood. "It is safest to assume that all emergency situations that involve transfer of certain body fluids have the potential for disease transmission for both rescuer and victim," the committee advised.

In a change from previous guidelines, the committee suggested that CPR rescuers can begin chest compressions before ventilating a victim as a guard against the transmission of disease between rescuer and victim.



## Rimas from page 10

charged, I went to Chicago, where most of my relatives were living. I was an intern at Ravenswood Hospital in Chicago for one year. A friend of mine insisted I come to Minnesota, so I applied to and was accepted in a general residency program at Fairview Hospital in Minneapolis. I finished my residency and completed my state board exams in Illinois and in Minnesota in 1955.

After that, I wasn't quite sure where to go, but Dr. Osmund A. Wisness, who was practicing in Comfrey, Minnesota, approached me about practicing in Comfrey. Instead, I went to Amboy, Illinois, where I practiced for a while and did a few surgeries. I was busy, but I didn't like that place too well. So I came back to Minnesota and went to Comfrey, which reminded me of my home country. I have been here for 33 years.

## Minnesota's Smallest Hospital

REECE: *How large is Comfrey?*

RIMAS: According to the last census, Comfrey is down to about 535 people.

REECE: *I understand that Comfrey Hospital is Minnesota's smallest, with eight beds. Are you the only physician in that hospital?*

RIMAS: I'm the only full-time physician admitting patients to the hospital, but we also have a urologist who comes several times a month or as needed. We also have visiting radiologists, and we have a surgeon from Sleepy Eye, a visiting psychologist, and a hospital pharmacist. We also have doctors occasionally admitting patients from the adjoining towns of Springfield and Sleepy Eye.

REECE: *That must be pretty demanding. How many hours a week do you work?*

RIMAS: It is demanding because I'm on call practically 24 hours a day, seven days a week. I don't count the hours.

REECE: *Do you have any back-up? Can you ever go on vacation?*

RIMAS: Yes, I make arrangements with neighboring physicians or locum tenens. I take brief vacations—weddings, funerals—that's about it.

## A Sense of Satisfaction . . . and Obligation

REECE: *Has it been a satisfying life practicing in Comfrey?*

RIMAS: Yes, it has. Professionally, it has been very satisfying, especially at the beginning, because we used to do a lot more than is possible to do now. I used to do more surgeries by myself, and I did uncomplicated deliveries. I delivered one set of triplets. Nowadays, you wouldn't dare to attempt a triplet delivery. But, at times I feel very isolated, especially when difficult and demanding decisions need to be made.

REECE: *What do you enjoy about practice in Comfrey?*

RIMAS: The quality of life, the hometown atmosphere, the friendly people, the knowledge about people and their families.

I can bicycle to work and play tennis at lunch.

REECE: *Did you raise your children there?*

RIMAS: Yes. I have two children. My son is an attorney in the Twin Cities. My daughter is a nurse. She lives near Chicago. They are both married. My son decided not to go into medical practice, probably because he didn't want to spend as much time tied to his profession as I have.

REECE: *Did he ever complain that you worked too hard and too long?*

RIMAS: He often said that I should be taking more vacations and that I should have more time for myself.

REECE: *Yet you remained in Comfrey for 33 years.*

RIMAS: There is a sense of satis-

faction, and you feel obligated to the people, too. Once I am gone, the hospital probably will be closed, and the town will be without a doctor.

REECE: *How old are you now?*

RIMAS: I'm 65. I can retire any time now.

## Recruiting a New Doc

REECE: *Do you fear for the future of the people in Comfrey without a doctor?*

RIMAS: Yes and no. The life of the town revolves around the hospital, but Springfield is 12 miles away, and it has three physicians. Sleepy Eye, with three doctors, is 17 miles away, and Mountain Lake has two physicians, so the people will be well taken care of. I don't believe it's going to be easy to find somebody who will come to Comfrey and spend all of his life taking care of the people. Younger physicians nowadays don't like to work so hard. That's my impression.

REECE: *Have you talked to any younger physicians who might replace you?*

RIMAS: The hospital board talked to some physicians, but they don't seem interested. Comfrey is just too small. It's not always the doctor who rejects the situation. The doctor has to think about his or her family. In Springfield, they interviewed several doctors, and their spouses said "absolutely not."

REECE: *There are problems in recruiting physicians for small rural towns. The towns just don't offer enough educational or cultural opportunities.*

RIMAS: The work is too hard; the cultural and educational opportunities are there, but you have to travel farther for them; and back-up is often absent. Group practice makes a big difference. That's why Comfrey was written about in the *Smithsonian*. We are history—so out of place, the smallest hospital, a solo practice. The hospital and I are struggling to keep it all going.

## Good Care . . . with a Personal Touch

**REECE:** *And yet the article is touching. In essence, the author says in the small town of Comfrey, you can't get a heart transplant or any fancy operation, but you can get good care with good technology and complete attention.*

**RIMAS:** We do have modern technology and good care. With all the requirements, we have to be up there with the big hospitals with what we offer for heart attacks, surgical care, obstetrics. We have the same standards and responsibilities as anywhere else, but we care.

**REECE:** *Let's say, for example, an elderly farmer in Comfrey comes to your hospital with an obvious myocardial infarction. What would happen in Comfrey?*

**RIMAS:** We would respond immediately. We go by protocol. We start the electrocardiogram, we do enzymes, we start the intravenous, we start medications to reduce the pain, and then, if we are sure it is a heart attack, we will probably start thrombolytic agents immediately. Then we would probably call an ambulance and send him somewhere else for follow-up. This is just standard procedure today unless someone cannot be moved.

**REECE:** *What about trauma? Somebody, let's say, is severely injured in an automobile accident or a farm accident. Do you stabilize these victims in the hospital, then transport them to major centers?*

**RIMAS:** Yes. We stabilize and then transport if it's indicated. For example, last February we had multiple trauma cases. A house explosion occurred causing severe injuries to eight members of one family. We treated all the people and stabilized them. An air ambulance transported two of the patients to the St. Paul-Ramsey Burn Center and one to Saint Marys in Rochester. Doctors from neighboring towns helped us, too. I mobilized all the personnel, and everything worked just the way it should work in any larger hospital.

There was no delay. We treated people for shock, burns, and other injuries; we repaired and immobilized broken limbs. Everybody responded as a team on very short notice.

**REECE:** *You're very proud of the level of care in Comfrey.*

**RIMAS:** Yes. We are providing the same care as any other hospital would, and we have a personal approach. We know the people, we have a modern and well-equipped hospital, and I still make house calls.

**REECE:** *Do you think the level of care in rural hospitals is underestimated or misrepresented?*

**RIMAS:** I feel that patient care in rural areas nowadays is not much different from the care and treatment given in urban institutions. Treatment is the same. Most of the people who go to tertiary centers in the Twin Cities or Rochester come back and say that the care they received in Comfrey's hospital is more personal and probably better because they get more atten-

tion. Out there, you're just a number in a big place. You go there, you wait.

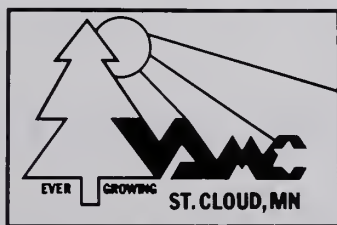
## Looking Back

**REECE:** *What are some of your memorable moments of your 33 years of practice in Comfrey?*

**RIMAS:** Assisting in the search after the B-52 crash in 1963, delivering triplets, treating the family whose house exploded, and a blizzard in 1965.

**REECE:** *What happened in that blizzard?*

**RIMAS:** Everything was covered by snow and driving winds. We had a patient die in the hospital. We called the undertaker, who was also the ambulance driver from a neighboring town. He called back 30 minutes later and said, "No go. I'm stuck in drifts. I can barely reach the farm buildings. I'll see you tomorrow." So we simply took the body, set it in the dentist's chair, which was then located in the old hospital building, and opened the windows. *cont.*



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Later, the snow was getting deeper. Visibility was zero. A woman called, and she wanted us to send an ambulance because she thought she was in labor. I told her our ambulance had been sitting in a ditch since early afternoon and couldn't move. Fifteen minutes later she called and said, "This is it! What do I do now?"

We called the highway department, and they got a big rig out and tried to get to her home, which was about seven miles out of town. In an hour, the rig managed to go one-half mile, but it got stuck in the ditch. The snow drifts were about 20 feet high by that time.

Meanwhile, I kept up a telephone conversation with the woman's husband, who got out an old medical book. He told me the baby's head was showing. I told him what to do next.

"OK, the baby is out," he said. "What do I do next?" I told him to clamp the cord and cut it and to make sure the placenta comes out.

He said, "It's a girl!" I said, "Congratulations, nice baby girl!"

Three days later, the woman came to the hospital so I could repair some lacerations. Nothing had been moved since the night of the blizzard, and the body was still in the dentist's office, with the windows open.

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**"We are history—so out of place, the smallest hospital, a solo practice. The hospital and I are struggling to keep it all going."**

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REECE: *That must have been quite a sight—the body in the chair and the postpartum patient in the adjoining room.*

RIMAS: Yes, it was. Many times since, I've had to put on my skis during Minnesota's blizzards to get to the hospital to deliver a baby.

REECE: *Do you take an active*

*political or civic part in the life of the town?*

RIMAS: I do what I can. It's usually behind the scenes support for the town and its hospital, such as Comfrey's hospital days. My practice and hospital duties have kept me very busy.

REECE: *So it's been a full and busy life, and you've treated a lot of people in this town.*

RIMAS: Most of them.

REECE: *You draw from Comfrey and the surrounding areas?*

RIMAS: Yes, from the surrounding area of over 200 square miles. Of course, people in small towns, like anywhere else, will go to surrounding towns for their medical care. In fact, my drawing area used to be a lot bigger until a few years ago, when adjoining towns expanded and younger doctors came in. I suppose the new doctors offer something new in medicine. I don't mind. I'm still as busy as I want to be. ■

THIRD ANNUAL

# UPDATES IN OPHTHALMOLOGY FOR PHYSICIANS

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## JANUARY 1990

**15-19** **Case Studies in Hematology and Surgical Pathology** Mayo Medical Laboratories, Breckenridge, Colorado. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, Minnesota 55905; (800) 562-1787.

**22-24** **Partners in Managing Type II Diabetes** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

**26-27** **Current Concepts of Cardiology** Abbott Northwestern Hospital; Radisson Arrowwood Inn and Resort, Alexandria, Minnesota. CONTACT: Tim Schuh, CME Office, 14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

**Jan 29-Feb 2** **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Park Nicollet Medical Foundation, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

## FEBRUARY 1990

**3** **Update in Ophthalmology** St. Paul Eye Clinic; Minnesota World Trade Conference Center, St. Paul, Minnesota. CONTACT: Judy Resheski, 240 Lowry Medical Building, 350 St. Peter Street, St. Paul, Minnesota 55102; (612) 221-9849, ext. 53.

**3-4** **Issues in Pediatrics** Children's Hospital Merit Care; Arrowwood Resort, Alexandria, Minnesota. CONTACT: Sue Heinze, Children's Hospital Merit Care, 720 4th Street North, Fargo, North Dakota 58122; (701) 234-5737.

**4-15** **Amazon River and Grenadine Islands** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, Minnesota 55116.

**12-16** **Neurology in Clinical Practice** Mayo Clinic/Mayo Foundation; Kauai Hilton, Lihue, Hawaii. CONTACT: Rita Kunz, 200 First Street SW, Mayo Clinic, Rochester, Minnesota 55905; (507) 284-2509.

**Feb 14-Mar 2** **South Pacific North Central** Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, Minnesota 55116.

**15-17** **Myelodysplasia Syndromes (Preleukemias)** Mayo Medical Laboratories; Mayo Clinic-Scottsdale, Arizona. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, Minnesota 55905; (800) 533-1710.

**Feb 28-Mar 4** **Thoracic Organ Transplantation** Minneapolis Heart Institute Foundation; Westin La Paloma, Tucson, Arizona. CONTACT: Tim Schuh, Minneapolis Heart Institute Foundation, 920 East 28th Street, Suite 60, Minneapolis, Minnesota 55407; (612) 863-3979.

## MARCH 1990

**7-9** **Annual Critical Care Medicine Conference** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

**15-16** **Family Practice Today** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

**19-23** **Problem-oriented Case Studies in Surgical Pathology** Mayo Medical Laboratories; Palm Springs, California. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, Minnesota 55905; (800) 562-1787.

**23** **11th Annual Occupational Medicine Update** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota 55101; (612) 221-3977.

## APRIL 1990

**5-6** **Annual Obstetrics and Gynecology Update** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

**6** **ENT Update** St. Paul-Ramsey Medical Center; St. Joseph's Hospital, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.





HENNEPIN COUNTY MEDICAL CENTER/HENNEPIN FACULTY ASSOCIATES

## CALENDAR OF MEDICAL EVENTS

**February 9, 1990**

MINNESOTA DERMATOLOGICAL  
SOCIETY WINTER CONFERENCE  
Bruce Bart, MD, Chairman  
Hennepin County Medical Center  
Minneapolis

**April 2-6, 1990**

AMERICAN COLLEGE OF PHYSICIANS (ACP)  
MEDICAL KNOWLEDGE SELF ASSESSMENT  
PROGRAM (MKSAP) VIII  
Roland Ingram, Jr., MD, Chairman  
Michael Belzer, MD, Vice Chairman  
Hennepin County Medical Center  
Minneapolis

**March 2, 1990**

PSYCHOPHARMACOLOGY AND THE  
PRIMARY CARE PHYSICIAN  
Stuart Thorson, MD, Chairman  
Hennepin County Medical Center  
Minneapolis

**April 6, 1990**

DISASTER AND HAZARDOUS  
MATERIAL MANAGEMENT  
CONFERENCE  
Brian Mahoney, MD, Chairman  
Radisson South Hotel  
Bloomington

**March 31, 1990**

Third Annual  
JOHN I. COE SYMPOSIUM  
"Fine Needle Aspiration"  
Michael Stanley, MD, Chairman  
Hennepin County Medical Center  
Minneapolis

**April 21, 1990**

Annual  
OBSTETRICS & GYNECOLOGY  
CONFERENCE  
Co-Chairpersons  
Stephen Cruikshank, MD  
Virginia Lupo, MD  
Scanticon Conference Center  
Plymouth

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ACADEMIC  
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**HCMC**

*For further information, contact the Office of Academic Affairs  
701 Park Avenue, Suite 4512, (Mail Code #865), Minneapolis, MN 55415; 612/347-2075*

## ***Continuing Medical Education***

### **Spring-Fall Conference Schedule**

Mark your calendar now for these upcoming conferences:

#### **1990**

- February 8-10 Advanced Burn Life Support, St. Paul
- February 10 Ramsey Research Conference, St. Paul
- March 2 Professional Ethics in Health Care—Real or Imaginary?, St. Paul
- March 15-16 Annual Family Practice Update Course, St. Paul
- March 23 Eleventh Annual Occupational Medicine Update, St. Paul
- March 31 Environmental Issues in Primary Practice, St. Paul
- April 5-6 Annual Obstetrics and Gynecology Update, St. Paul
- April 6 ENT Update, St. Paul
- June 22-23 Annual Critical Care Medicine Conference, St. Paul
- September 14-15 Issues in Pediatric & Adolescent Reproductive Medicine, St. Paul
- September 28 Parenting, St. Paul
- October 25-26 Emergency Medicine, St. Paul
- November 15-17 Clinical Strategies in Primary Care Medicine, St. Paul
- November 30 Mental Illness in the Mentally Retarded, St. Paul
- December 6-8 Annual Cardiopulmonary Medicine Update, St. Paul

#### **Information and Registration**

Continuing Medical Education, St. Paul-Ramsey Medical Center  
640 Jackson Street, St. Paul, MN 55101 • Phone (612) 221-3992

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**Family Physician** wanted to join four physicians, one nurse practitioner, FP group practicing in two offices in Pine River and Pequot Lakes. Competitive salary. No OB. No HMOs. Rural area with outdoor recreational opportunities. Rotate hospital visits, emergency call; adequate free time. Call or write: C.R. Pelzl, M.D., Pine and Lakes Clinics, PO Box 88, Pine River, Minnesota 56474; (218) 587-4416. (R)

**Physician: GP/FP/EM** seeks locations to cover on weekends a locum tenens. Board-certified. FP. Lic. Minn. Write: Box 35132, Minneapolis, Minnesota 55436. (R)

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**Family Physician** needed to join group of five family physicians in St. Peter, Minnesota, population 9,000, located one hour south of Minneapolis. Contact: Curt Stolee, M.D., or D.A. Nygard, Administrator, St. Peter Clinic, Ltd., 622 Sunrise Drive, St. Peter, Minnesota 56082; (507) 931-2110. (R)

**Bemidji, Minnesota:** Excellent opportunities for well-trained physicians. We are seeking board-certified/board-eligible physicians in orthopedic surgery, family practice, ophthalmology, pediatrics, and otolaryngology to join a young 24-physician multispecialty group practice located in northern Minnesota. Competitive salary guarantee plus incentive first year and excellent benefits. An excellent opportunity for a physician to enjoy practice in the center of hunting, fishing, and clear air. Please respond with CV to: C.C. Lowery, Administrator, Bemidji Clinic-MeritCare, 1233 34th Street NW, Bemidji, Minnesota 56601; (218) 751-1280. (R)

**Family Physician** to join medical staff of two family practitioners in well-established rural clinic in central Minnesota, along the southern shores of beautiful Mille Lacs Lake. Excellent subspecialty support, progressive community hospital, diverse patient population. Call collect, (612) 676-3661, or write c/o Nancy Swenson, Clinic Manager, Mille Lacs Family Health Center, PO Box 53, Isle, Minnesota 56342. (R)

**Outstanding Opportunity for a BE/BC Family Physician** to join a progressive medical community with eight physicians oriented to family practice. Details will be given by contacting: Dr. Tim Schmitt, Wadena Medical Center; (218) 631-1360; or Jim Lawson, Administrator, Tri-County Hospital, Wadena, Minnesota 56482; (218) 631-3510. (R)

**Internist BE/BC:** North Shore Internal Medicine, PC is seeking an energetic general internist to enjoy the benefits of a rapidly expanding practice. New office close to hospital. Michigan State Medical School Campus. Send resume to: 2420 First Avenue South, Escanaba, Michigan 49829; (906) 786-1563. (R)

**BE/BC Psychiatrist, Orthopedic Surgeon:** Excellent opportunity to join a well-established, progressive, 20-physician multispecialty group (10 FP, 4 IM, 2 OB/GYN, 1 Peds, 2 Surg, 1 Derm) located in an economically sound community of 20,000 (drawing area of 30,000), 65 miles south of Twin Cities. Full membership after one year. Competitive salary and fringe benefit package. Contact: Terry Tone, Clinic Manager, 134 Southview, Owatonna, Minnesota 55060; (507) 451-1120. (R)

**Psychiatrist:** An opening exists for a general psychiatrist with Hennepin Faculty Associates. Salary and benefits are generous. Requirements are board eligibility, Minnesota licensure, and potential for appointment in the Department of Psychiatry at the University of Minnesota. Position involves mainly inpatient and some outpatient care of acutely ill patients. This would be in association with over a dozen other full-time psychiatrists engaged in clinical care, teaching, research, and forensics. The University of Minnesota and Hennepin County Medical Center are equal opportunity educators and employers and specifically invite and encourage applications from women and minorities. Contact: William W. Jepson, M.D., Chief of Psychiatry, Hennepin County Medical Center, 701 Park Avenue South, Minneapolis, Minnesota 55415; (612) 347-5764. (R)

**International Medicine and Family Practitioners BE/BC** to join a progressive 12-physician group practice in July 1990. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: R.M. Hammer, M.D., River Falls, Wisconsin 54022; (715) 425-6701 or (612) 436-8809. (\*) (R)

**St. Cloud—** Minnesota's fastest growing city—family practice physician, two pediatricians, two ob/gyns, BE/BC to join supportive primary care staff in a growing, successful, and innovative prepaid practice. New clinic facility. Full range of fringe benefits (competitive salary, liberal vacation, two weeks' education leave, retirement fund, etc.). Contact: Physician Services, Central Minnesota Group Health Plan, 1245 15th Street North, St. Cloud, Minnesota 56303; (612) 253-5220. An equal opportunity employer. (R)

**Robert William James & Associates** has been providing physician search services to client organizations since 1977. We are currently seeking physicians in virtually all specialty areas for health care clients throughout the country. Fees are assumed by our clients. All inquiries are handled in a professional and confidential manner. For further information, contact: John S. Shonyo, CPC, Physician Recruiter, Robert William James & Associates, 2360 North Broadway, Rochester, Minnesota 55904; (507) 285-9270. Offices located nationwide. (\*) (R)

**Waseca, Minnesota:** Family practice physician to join four family practitioners. Population 8,000. One hour south of Burnsville Center; lakes; industry. Salary negotiable. Clinic-adjacent hospital. Ample free time to enjoy family life. Contact: James W. Dey, M.D., or Ruth Hawker, 501 North State Street, Waseca, Minnesota 56093; (507) 835-3110. (R)

**Immediate Opening:** Family practice physician BC/BE to replace retiring physician and join our team of caring professionals providing primary care medical services in a well-established facility. Competitive salary plus incentive pay, choice location, and excellent benefits (malpractice insurance included). Interested candidates should send

CV to: Robbinsdale Clinic, 3819 West Broadway, Minneapolis, Minnesota 55422; (612) 533-2534. (R)

**Family Practice—Hospital-Sponsored Clinic Opportunity:** Dynamic, growth-oriented hospital in beautiful north-central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus, and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, Minnesota 55435; (612) 835-5123. (R)

**Family Physician, BC/BE** wanted to join three board-certified MDs in well-established, expanding group practice. Enjoy a progressive, rural city within easy reach of St. Cloud and Minneapolis. Contact: Dr. Jim Mohs, Melrose Clinic, 603 West Main Street, Melrose, Minnesota 56352; office: (612) 256-4228, home: (612) 256-3488. (R)

**Unsecured Signature Loans \$5,000-\$60,000 for Physicians:** Use for any need including taxes, debts, investments, etc. No points or fees. Competitive rates. Level payments up to six years. Call toll free: 1-800-331-4952, MediVersal, Department 114. (R)

**Exciting Pediatric Opportunity:** Full or part time. East-metro practice offering stimulating combination of primary care, teaching, and consultative services. Excellent salary and benefits. Inquiries to Ruth at (612) 636-4122. (R)

**Family Physicians:** Well-established south suburban Minneapolis family practice group seeks associates part/full time to staff day

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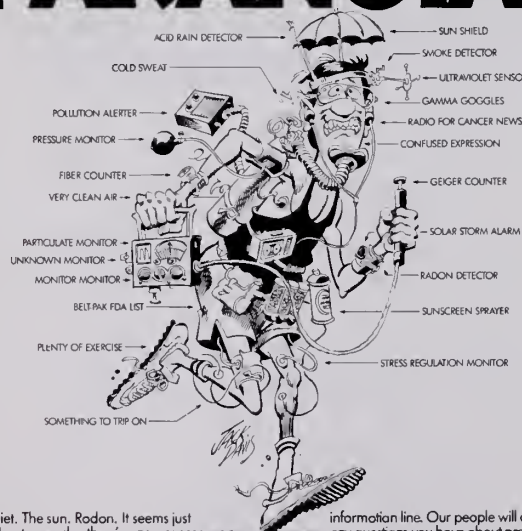
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clinic. Excellent call schedule, salary, and fringe benefits. Also seeking locum tenens to staff PT/FT Urgent Care Centers and/or day clinic. Contact: Administration, Family Physicians, P.A., (612) 435-4125 or send inquiries to Suite 100, 14050 Nicollet Avenue South, Burnsville, Minnesota 55337. (\*9/89-R)

**Family Physician BC/BE** needed to join three other FPs in progressive growing practice on Lake Pepin/Mississippi River in southeastern Minnesota. Excellent first-year salary/benefits in a beautiful community with multiple recreational opportunities. Contact: D. D. Pflaum, M.D., 303 South Washington, Lake City, Minnesota; (612) 345-3318. 6-1/90

**Practice For Sale—Wisconsin:** Southwest Milwaukee suburb. Internal medicine or primary care. Located on main thoroughfare in hospital neighborhood. Reasonable terms. Financial assistance available. Inquire: PO Box 727, Elm Grove, Wisconsin 53122. (\*R)

**Immediate Opportunity for Internist or Family Practitioner** in north-suburban area. Three primary care physicians in well-established practice. Competitive base salary plus incentive pay. Location next to Brookdale Shopping Center. Excellent benefits, which include pension, profit sharing, and malpractice insurance. Contact: Duane Orn, M.D., Northport Medical Center, 5415 Brooklyn Boulevard, Brooklyn Center, Minnesota 55429; (612) 533-8666. (9/89-R)

**Olmsted Medical Group** is currently seeking board certified/board eligible physicians in the following specialties: OB/GYN, EMERGENCY MEDICINE, INTERNAL MEDICINE, RADIOLOGY, GENERAL SURGERY, AND NEUROLOGY. This is an excellent opportunity for well-trained physicians to join a 50-physician multispecialty group in an established, progressive practice. In addition to the recently expanded main office located in Rochester, Minnesota, the Olmsted Medical Group operates eight branch offices in southeastern Minnesota. The affiliate hospital recently underwent a complete renovation and expansion project. Olmsted Medical Group offers a competitive salary and comprehensive benefit package including malpractice insurance, flexible benefits plan, 401K, and profit sharing. Send CV to: Olmsted Medical Group, Attn: Susan Schuett, 210 Ninth Street SE, Rochester, Minnesota 55904. 3-3/90

**Georgia:** Family practice, internal medicine, oncology, endocrinology, neurosurgery, neurology, general surgery, and orthopedic surgery. Group practice, solo, or urgent care settings available through the Charter hospital network located in Macon and serving all of middle Georgia. Your practice will be located 80 miles south of Atlanta, in a growing family-oriented community, where you can avoid traffic and enjoy a rewarding professional career. Please contact: Steve Wofford, (912) 741-6283, for a confidential consultation, or write: Charter Northside Hospital, PO Box 4627, Macon, Georgia 31208. 6-3/90

**Locum Tenens** physicians needed. Physicians and locations coordinating services. Write to: Margaret Carse, MED Professional Resource Search, PO Box 35215, Minneapolis, Minnesota 55435. (10/89-R)

**Wholesale Life Insurance—** No front load and no surrender charge. Example: 45-year-old male, \$500,000. First-year premium—\$4,000. First-year guaranteed cash value—\$3,526. Offered by Ameritas Life Insurance Corp., a hundred-year-old Best's rated A+ (superior) company. For further information contact: Greybull Insurance Services, 1313 5th Street SE, Minneapolis, Minnesota 55414; (612) 379-3860. (\*10/89-R)

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**General Internist:** Park Nicollet Medical Center is a 290-physician multispecialty clinic in Minneapolis. Our general medicine sections



are expanding in both urban and suburban locations. We offer competitive salaries and excellent benefits. If you are a BC/BE general internist interested in a group practice setting, send your CV to: Robert Lohr, M.D., Chairman, Department of Internal Medicine, Park Nicollet Medical Center, 5000 West 39th Street, Minneapolis, Minnesota 55416. \*3-1/90

**Positions Available in Family Practice, Internal Medicine, Obstetrics/Gynecology, and General Surgery:** 28-physician multispecialty clinic seeking additional physicians in FP, IM, Ob/Gyn, and GS departments. Interstate Medical Center offers a competitive salary, comprehensive benefits, and the support and team approach of a multispecialty environment. Red Wing is a midsize community along the bluffs of the Mississippi River only 40 miles from the Minneapolis/St. Paul area. Area highlights include an excellent school system, a growing cultural environment, water recreation, skiing, and an active business climate. Red Wing has all the benefits of a metro area in a serene setting. For additional information, please call or send CV to: Don Bruns, M.D., Highway 61 West, Red Wing, Minnesota 55066; (612) 388-3503. \*3-1/90

**Emergency Physician:** Outstanding opportunity for qualified individual to join incorporated group of three BP/BC emergency physicians in a unique, democratic, and thoroughly enjoyable practice. Excellent compensation and complete career opportunities are offered in a very livable community offering a diversity of recreational and cultural pursuits. Call or write: Mark Singsank, M.D., NET, PC, Emergency Department, Mercy Health Center, Dubuque, Iowa 52001. \*3-1/90

**Family Physician:** Tired of call? Want predictable hours? Full-time physician needed to work three days per week in our outpatient family practice clinics. Two positions open for July 1990. Salary plus bonus and benefits including malpractice insurance. Contact: Todd Patton, M.D., or William Wenmark, CEO, c/o NOW Care Medical Centers, 13031 Ridgedale Drive, Minneapolis, Minnesota 55343; (612) 593-9010. 4-2/90

**Radiologist:** A three-physician radiology group is seeking a fourth radiologist with experience and interest in interventional radiology. Dickinson County Hospitals is a progressive, 126-bed, two-hospital system located in Iron Mountain on Michigan's Upper Peninsula. We have a service-area population of over 45,000. Contact and/or send resume to: Drs. Specht/Shampo/Manzano, Radiology Department, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, Michigan 49801; (906) 779-4565. 2-1/90

**Family Practice:** Physicians seeking a BE/BC family practice physician for the Norway, Michigan, service area. The physician would have the option of joining one of the existing practices and/or set up his/her own practice. Anderson Memorial Hospital is a part of Dickinson County Hospitals and has a service-area population of over 45,000. Contact: Dr. Paul Hayes, Anderson Memorial Hospital, Main Street, Norway, Michigan 49870; (906) 563-9243, or office (906) 563-9255. 2-1/90

**Fort Meade, South Dakota:** Immediate opportunity for board-certified or board-eligible internist or family practice physician in the ambulatory care section of a Veterans Administration Medical Center. Excellent benefits package. Contact or send CV to: Dr. Jerde, Chief, Ambulatory Care, VA Medical Center, Fort Meade, South Dakota 57741; (605) 347-2511, ext. 435. An equal opportunity employer. \*2-1/90

**General Internist—St. Cloud, Minnesota:** Opportunity available in a growing physician clinic of specialists and subspecialists of internal medicine. Community has three colleges, excellent school system, and abundant recreational activities. Family living conditions are excellent: The St. Cloud Clinic is located in a new facility with access to the latest in medical technological developments. For more information about this position, please contact: Brad E. Currier, M.D., or Mark Murphy, Administrator, 1200 Sixth Avenue North, St. Cloud, Minnesota 56303; (612) 252-5131. 2-1/90

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**General Internist—Black Hills of South Dakota:** Multispecialty group located in the highly desirable Black Hills of South Dakota. Outstanding opportunity to assume an established practice with a progressive group in an area experiencing substantial economic growth. Attractive compensation package including paid professional liability insurance. New modern clinic facility located adjacent to accredited acute-care hospital. Direct inquiries to: Darrel Riddle, Administrator, Black Hills Medical Center, P.C., 71 Charles Street, Deadwood, South Dakota 57732. 2-1/90

**Family Practice—Suburban Minneapolis:** Multispecialty group with 25 family practice physicians has an excellent opportunity available. Call is one in 25 weekdays and one in four weekends (one day), full day off during week, excellent compensation, and unparalleled benefits program. Write: Columbia Park Medical Group, #480, 6200 Shingle Creek Parkway, Brooklyn Center, Minnesota 55430; or call: Robert Hovda, M.D.; (612) 788-9601. 3-2/90

**Family Practice:** Southwest Iowa community of 7,800 (serving 27,000) seeking a family physician to join well-established six-doctor practice. Modern facility adjacent to 100-bed hospital. Income guaranteed first year, and full partnership after first year. For additional information, write to: Atlantic Medical Center, Sue Marsh, Office Manager, PO Box 429, Atlantic, Iowa 50022; or phone (712) 243-2850. 3-2/90

**St. Peter, Minnesota:** Available immediately. Position of senior staff physician to work with progressive and forward-looking staff and administration to meet the medical needs of the patients at St. Peter Regional Treatment Center. JCAHO-accredited. Delightful setting in the heart of the Minnesota River Valley. University town of 10,000, ten minutes from Mankato and one hour from the Twin Cities. Salary range from \$60,000 to \$104,000 for BC/BE according to experience, with excellent fringe benefit package and an opportunity for expanding income through minimal call. An AA/EOE employer. For further information, contact: S. McHutchison, M.D., Director of Medical Services, St. Peter Regional Treatment Center, 100 Freeman Drive, St. Peter, Minnesota 56082; (507) 931-7707. 3-2/90

**Minneapolis:** BC/BE family practitioner or other specialty with emergency-room experience sought for the urgent care department of a large multispecialty group in desirable Twin Cities location. Our medical clinic is a highly reputable, well-established clinic that has been in existence for more than 38 years. Salary and benefits are highly competitive. Regular work week expectation without night call or hospital obligation. Send CV and letter of inquiry to: Patrick Moylan, Park Nicollet Medical Center, Minneapolis, Minnesota 55416. \*3-2/90

**Family Physician or Internist:** Busy family practice/industrial practice located on the beautiful North Shore of Lake Superior. Outdoor activities abound: hiking, skiing—xc and downhill—fishing, etc. Two-physician practice is looking for a third physician for a rewarding practice. VA nursing home is a near future reality. Contact: Jon Ward, Manager, Silver Bay Clinic, Ltd., Silver Bay, Minnesota 55614; (218) 226-4431. (12/89-R)

**The University of Minnesota School of Dentistry** invites applications for part-time and full-time non-regular faculty for consultative diagnostic and treatment planning services in specialty clinics. M.D. required, with training and experience in otolaryngology, cleft palate patient care, and/or physical medicine and rehabilitation with experience in chronic pain. The University of Minnesota is an equal opportunity educator and employer and specifically invites and encourages applications from women and minorities. Send resume (indicating specialty or area[s] of clinical expertise) by 6/30/90 to: Dean Richard P. Elzay, University of Minnesota School of Dentistry, 515 Delaware Street Southeast, Minneapolis, Minnesota 55455. \*1-1/90

**The University of Minnesota School of Dentistry** invites applications for research specialist (M.S. required), research fellow (D.D.S. required), research associate (Ph.D. required), and postdoctoral associate (Ph.D. required) positions. Applicants must have at least two years of research training. Positions will provide research expertise in planning and execution of research designs and methodology. The University of Minnesota is an equal opportunity educator and employer and specifically invites and encourages applications from women and minorities. Send resume (indicating specialty or area[s] of clinical expertise) by 6/30/90 to: Dean Richard P. Elzay, University of Minnesota School of Dentistry, 515 Delaware Street Southeast, Minneapolis, Minnesota 55455. \*1-1/90

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communities, including Minneapolis/St. Paul. Send CV to: Clinic Manager, 501 Lakeshore Drive, Sauk Centre, Minnesota 56378.

1-1/90

**Faculty Positions, Department of Surgery:** The University of Iowa Department of Surgery invites applications for faculty positions of all ranks for M.D.s with special qualifications in: 1) all areas of general surgery and plastic surgery, 2) cardiothoracic surgery, and 3) neurosurgery. Associate positions are available in the Emergency Treatment Center. Women and minorities are encouraged to apply. Written only inquiries and curriculum vitae direct to: R.J. Corry, M.D., Professor and Head, Department of Surgery, The University of Iowa College of Medicine, Iowa City, Iowa 52242. Please specify specialty. We are an equal opportunity/affirmative action employer.

\*1-1/90

**Orthopedic Surgeon:** A progressive, 126-bed, two-hospital system is seeking an orthopedic surgeon to join an established practice in the Iron Mountain area of Michigan's Upper Peninsula. Must be BE/BC. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Dr. Roberts will guarantee \$200,000 plus malpractice insurance, office space, CME, vacation, and relocation expenses. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, Michigan 49801; (906) 779-4500. \*2-2/90

**Dermatologist, Psychiatrist, Allergist, Internal Medicine, Family Practice:** A progressive, 126-bed, two-hospital system is seeking the above specialists to establish practices in the Iron Mountain area of Michigan's Upper Peninsula. Must be BE/BC. Located 100 miles north of Green Bay, Wisconsin, Dickinson County Hospitals has a total service area population of over 45,000. Diagnostic capabilities include a CT scanner, CO<sub>2</sub> laser, and a fully staffed special diagnostic department. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, Michigan 49801; (906) 779-4500. \*2-2/90

**Women's Health—Family Practice/Internal Medicine:** Nearly a perfect practice working with a preventive health care team in a brand new facility. This is an established women's program that offers an affiliation with Iowa's oldest multispecialty group. Excellent guarantee, safe and well-educated community. Call or send CV to: Maxine Brinkman, 23 North Federal, Mason City, Iowa 50401; (515) 424-1100. 2-2/90

**Physician Opportunities:** Family practice, internal medicine, general surgery, nephrology, oncology, and ob/gyn opportunities available in the Midwest and nationwide. All guarantee excellent incomes and can be reviewed in full confidence. Call or send CV to: Mary Agnello, Caswell/Winters Inc., 11400 West Lake Park Drive, Milwaukee, Wisconsin 53224 or 1-800-332-0488. In Wisconsin, (414) 359-1111. 2-2/90

**Eugene, Oregon—Internist, BC/BE** to join well-established 35-physician primary care group. Excellent schools. Abundant cultural and recreational opportunities. Near Cascade Mountains and coast. Home of University of Oregon. Please send CV to: Phil Taggart, M.D., Oregon Medical Group, 495 Oakway Road, Eugene, Oregon 97401; or call (503) 683-5808. 3-3/90

**Physicians Wanted:** If you enjoy the outdoors, from big lake sailing, canoeing, and skiing to dogsledding, you'll enjoy northern Minnesota and the North Shore of Lake Superior. Three-physician group desires energetic board-certified family physician to bring comprehensive health care to northeastern Minnesota. Share call, hospital, and nursing home responsibilities. Excellent benefits. Flexible hours. Openings available 1990. Locum tenens and full-time positions available. Contact: Bruce Dahlman, M.D., or Rita Plourde, Director, Cook County Community Clinic, Grand Marais, Minnesota 55604; (218) 387-2330. 3-3/90



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Send curriculum vitae and references to: Bunny Iverson, Director of Physician Recruitment  
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**Wisconsin—Family Practitioner Needed** by progressive and growing group practice in west-central Wisconsin city of 55,000. Ninety miles from Minneapolis/St. Paul. Primarily prepaid practice with large component FFS. Highly competitive salary with excellent fringe. Practice high-quality care in a good recreational area. Send CV to: Stuart Lancer, M.D., 1030 Regis Court, Eau Claire, Wisconsin 54701; (715) 836-8552. 3-3/90

**General Medicine:** Position available with Cancer Detection Center at University of Minnesota. Clinic focus is on health risk screening and assessment. Hourly wage. Part-time flexible hours. No week-ends. No call. Current Minnesota license required. For more information, call/write: Dr. Donald E. Stewart, Director, Box 99, University of Minnesota Hospital, Minneapolis, Minnesota 55455; (612) 625-6970. 3-3/90

**Mankato:** FP partner to join four board-certified family physicians, ages 31-41, in fast-growing, full-range practice, includes ob. Population 40,000+. Seventy miles to Twin Cities. Four colleges nearby. 90+ physicians on hospital staff. Academic appointment available. Call: Tony Giefer, M.D. (507) 387-8231. (1/90-R)

**Des Moines, Iowa:** Multispecialty P.C. has immediate need for BC/BE physicians in the following specialties: family/general practice, oncology, dermatology, internal medicine, and ob/gyn. Initial financial package with start-up assistance, coverage, and free lease space is available. Located in metro area of 400,000; great schools, diverse cultural activities, college/professional sports. Interested physicians reply to: Minnesota Medicine (838), 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414. \*3-3/90

**Medical Equipment For Sale:** Medical equipment, furniture, and supplies to adequately furnish a one- to two-doctor medical practice. All equipment is in excellent and well-maintained condition. Equipment will furnish four complete exam rooms/emergency room, laboratory, X-ray room, business office, receptionist area, and waiting room. Laboratory includes ZF-5 Coulter Analyzer and binocular microscope. X-ray equipment includes 300 ma X-ray machine and automatic processor. Must see to appreciate. Very reasonably priced. For an appointment to see equipment or for a list of the equipment, please send inquiries to: Minnesota Medicine (837), 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414. 6-6/90

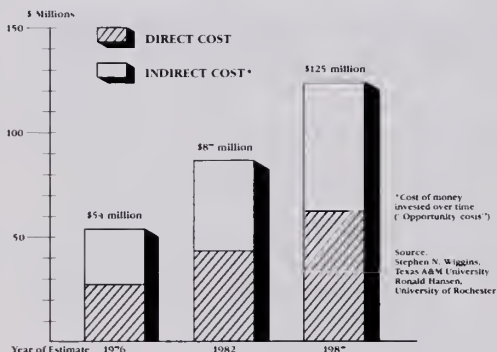
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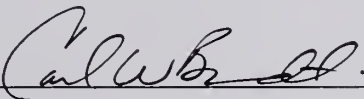
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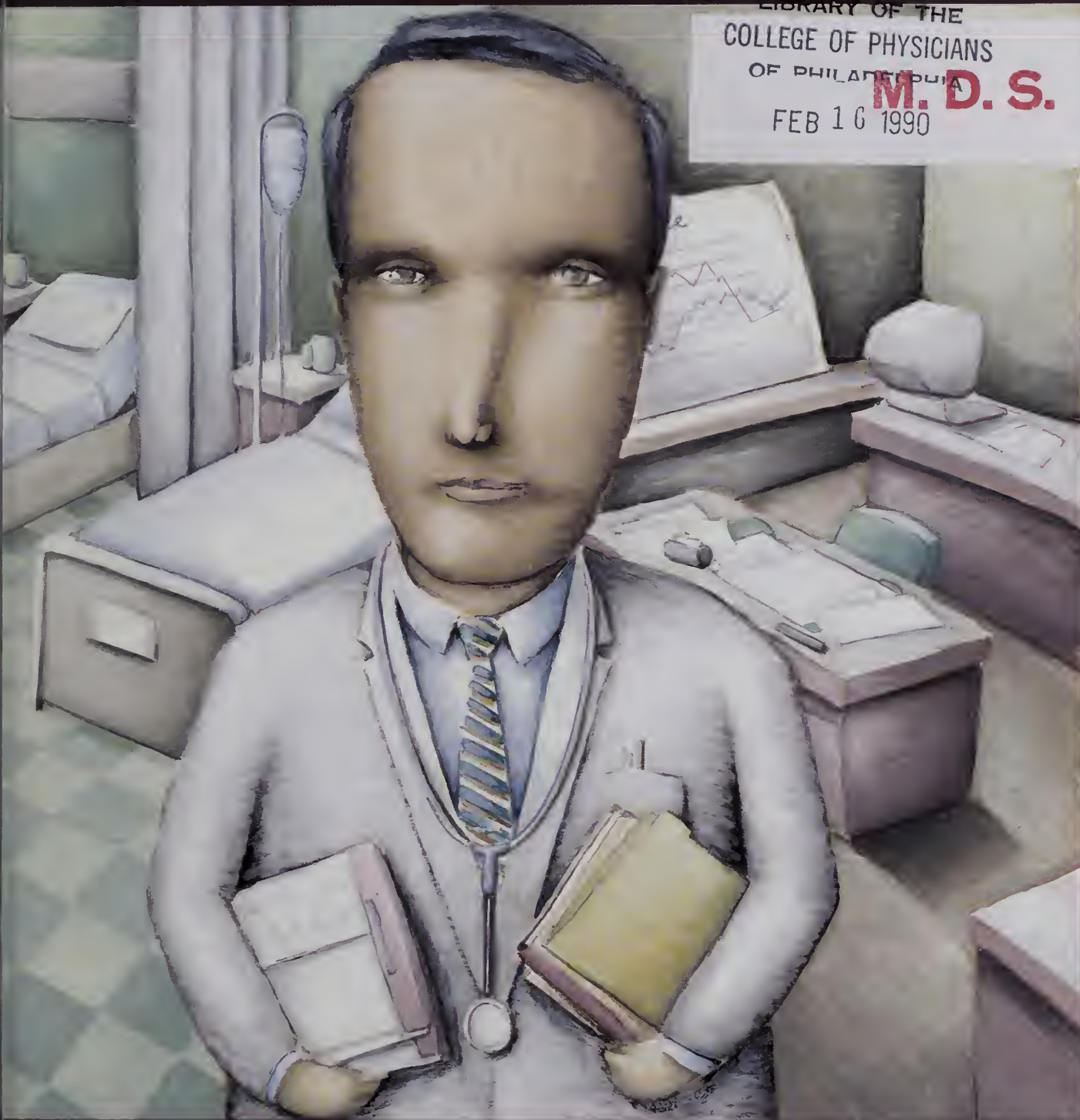
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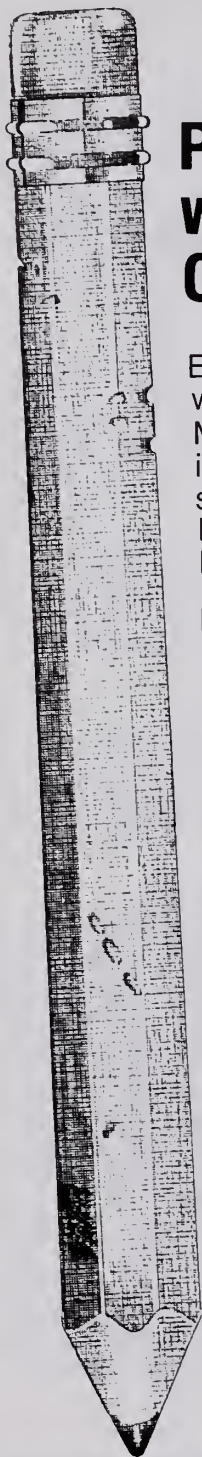
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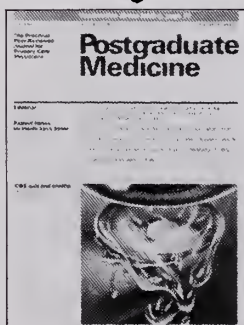
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Richard L. Reece, M.D.

### Managing Editor

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### General Information

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**Warnings:** *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition is generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

**Hypotension:** Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed. Caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hypotension, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

**Neutropenia/Aggranulocytosis:** Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

**Precautions:** *General:* **Impaired Renal Function:** As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

**Evaluation of patients with hypertension or heart failure should always include assessment of renal function.** (See DOSAGE AND ADMINISTRATION.)

**Hyperkalemia:** Elevated serum potassium ( $>5.7$  mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

**Surgery/Anesthesia:** In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

**Information for Patients:**

**Angioedema:** Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes; lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

**Hypotension:** Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

**Hyperkalemia:** Patients should be told not to use salt substitutes containing potassium without consulting their physician.

**Neutropenia:** Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

**NOTE:** As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

**Drug Interactions:**

**Hypotension:** *Patients on Diuretic Therapy:* Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

**Agents Causing Renin Release:** The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

**Other Cardiovascular Agents:** VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

**Agents Increasing Serum Potassium:** VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

**Lithium:** Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

**Pregnancy—Category C:** There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Some supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters. There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that

show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly defined, VASOTEC<sup>®</sup> (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

**Nursing Mothers:** Milk in lactating rats contains radioactivity following administration of <sup>14</sup>C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

**Pediatric Use:** Safety and effectiveness in children have not been established.

**Adverse Reactions:** VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

**HYPERTENSION:** The most frequent clinical adverse experiences in controlled trials were headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

**HEART FAILURE:** The most frequent clinical adverse experiences in both controlled and uncontrolled trials were dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

**Cardiovascular:** Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension); cardiac arrest, pulmonary embolism and infarction, rhythm disturbances, atrial fibrillation, palpitation.

**Digestive:** Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis, stomatitis.

**Musculoskeletal:** Muscle cramps.

**Nervous/Psychiatric:** Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

**Urogenital:** Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

**Respiratory:** Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

**Skin:** Herpes zoster, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

**Special Senses:** Blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgia/arthritis myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity rash and other dermatologic manifestations.

**Angioedema:** Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

**Hypotension:** In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

**Clinical Laboratory Test Findings:**

**Serum Electrolytes:** Hyperkalemia (see PRECAUTIONS), hyponatremia.

**Creatinine, Blood Urea Nitrogen:** In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

**Hemoglobin and Hematocrit:** Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

**Other (Causal Relationship Unknown):** In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

**Liver Function Tests:** Elevations of liver enzymes and/or serum bilirubin have occurred.

**Dosage and Administration:** **Hypertension:** In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed. If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium. (See PRECAUTIONS.)

**Dosage Adjustment in Hypertensive Patients with Renal Impairment:** The usual dose of enalapril is recommended for patients with a creatinine clearance  $>30$  mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance  $<30$  mL/min (serum creatinine  $>3$  mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

**Heart Failure:** VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may increase the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

**Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia:** In patients with heart failure who have hyponatremia (serum sodium  $<130$  mEq/L) or with serum creatinine  $>1.6$  mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more. If at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function, the maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19386.

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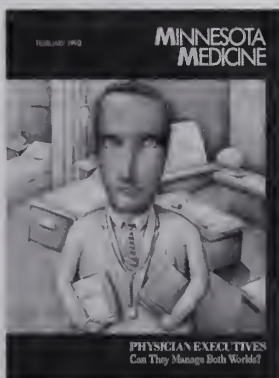
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## Cover Illustration

**PHYSICIAN EXECUTIVES** In greater numbers every year, physicians are venturing into the business side of medicine. They're going back to school for management training to take advantage of openings stemming from the growth in managed care, to improve their effectiveness and marketability, and because they know the importance of physicians—rather than lay people—telling physicians what to do.

Illustration by Rick Peterson of Minneapolis.



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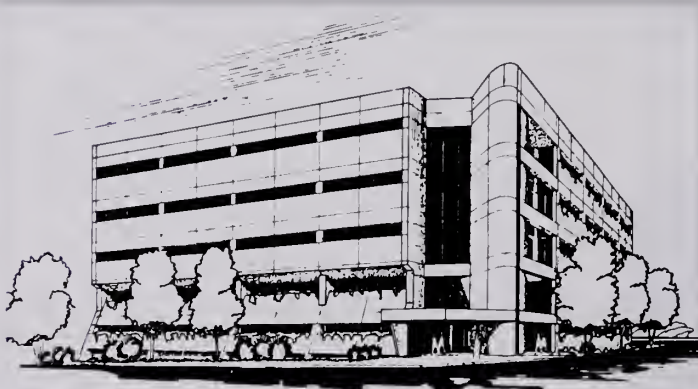
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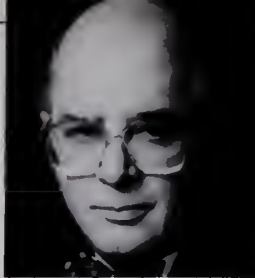


## Sioux Empire Medical Center

### Contact

Carl W. Hinson  
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1-800-468-3333





RICHARD L. REECE, M.D.

## Obstacles to Physician Leadership

*"Why do we not have better leadership? The question is asked over and over. We complain, express our disappointment, often our outrage, but no answer emerges . . . it is not a question at all but simply convenient shorthand to express deep and complex anxieties."*

John Gardner, *On Leadership*  
The Free Press, A Division of  
MacMillan, 1989

### The Questions

Why don't we have better physician leadership? Why do we pay so little heed to physicians who become political leaders within organized medicine? Why don't we have individual leaders (or leadership teams) who induce physicians as a whole to pursue objectives held by a leader or shared by the leader and his or her followers? Why don't we respect physicians who go into management or who are elevated to executive positions? Why can't physician leaders get together with hospital executives to form effective organizations?

### The Answer

To me the answer is quite simple. We haven't had time to train physician leaders to deal with organizational issues. We have a leadership gap. Not until 1980 or so did it become apparent that health care inflation was permanent, that outside forces would feel compelled to "manage" this inflation, that prospective payment would set a limit on hospital use of resources, that this prospective payment would extend to doctors, and that hospitals and doctors would have to join forces in some fashion to survive.

After attending an American Col-

lege of Physician Executives course and after meeting with a number of young physicians completing the College of St. Thomas' M.B.A. program, I have discovered a new generation of physician leaders is being trained and is emerging. These leaders include physicians pursuing M.B.A. degrees, physicians becoming hospital medical directors, physicians rising within the ranks of managed care organizations, physician politicians out there dealing with the real world, physicians assuming administrative posts within multispecialty clinics, and physician entrepreneurs who are launching and managing their own organizations.

I have also found that a generation gap of expectations exists among physician leaders. Among those physicians over 50, I find an extraordinary level of discontent. You hear this discontent everywhere—in hospital staff rooms, in academic circles, inside medical clinics, in medical political circles. And you hear it among physician executives—those physicians who are trying to reform their fellow physicians to help them practice better medicine at a lower cost.

### Expressions of Our Discontent

This discontent expresses itself in various ways.

► In a poll I conducted three years ago among Minnesota physicians, two-thirds said they wouldn't advise their children to practice medicine, and the same number said they were pessimistic about their futures.

► Among Harvard Medical School alumni the level of discontent is so high and the cries of outrage so

intense that the alumni association is conducting a poll to see why the alumni are so unhappy about practice conditions.

► A month ago I spoke with a television producer of WGBH in Boston. The station, she said, wanted to do a 90-minute program on the emotional distress, demoralization, and general dis-ease of American physicians. She said she was astonished at the number of unhappy physicians she had met who had quit practice at the peak of their careers.

► During a course for physician executives I attended recently, I was told record numbers of physicians are stopping their practices to take administrative posts. Indeed, those conducting the course predicted that by 1995 every hospital in the United States with more than 200 beds will have a physician with a title of vice president of medical affairs.

► In Cambridge, Massachusetts, a 2,000-member organization promoting national health insurance, Canadian style, has lent its voice to cries for universal health coverage in the United States. But an independent poll of 100 physician thought-leaders indicates deep pessimism about the perceived impact of universal health coverage: 50 percent said the quality of care would suffer, 64 percent said fewer people would enter medicine, 59 percent said access to specialized care would fall, 74 percent said professional satisfaction among physicians would fall, and 84 percent thought physicians' financial

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# An Advocate for Minnesotans' Health

**REECE:** *Sister Mary Madonna, a lot of water has gone under the bridge and over the dam since you and I were classmates at the Harvard School of Public Health taking a course on health systems management in 1976. At the time, you were the chief executive officer of St. Mary's Hospital in Minneapolis. You became state health commissioner in 1983. What are the biggest challenges you've faced as Minnesota's commissioner of health?*

**ASHTON:** My first challenge was simply proving myself as a professional person. There was a lot of controversy over my appointment, first, because I am not a physician; second, because some people in the community simply believed that a member of a religious order would not be able to do this job. I had to prove that I was capable of handling this type of position.

Since that time, the AIDS epidemic has been the most significant challenge. When I took this position, there were only four confirmed cases of AIDS in Minnesota. I honestly didn't know anything about AIDS. I had a lot of learning to do myself. Fortunately, I had a very well-educated and committed staff. I think we've put into place a good AIDS prevention program and we're working on a good plan for caring for people with AIDS.

## The AIDS Challenge

**REECE:** *How many AIDS cases do we now have and how many deaths?*

**ASHTON:** We have had about

640 cases, and about 55 percent of those people have died. We anticipate that by the end of 1990 we will have around 1,300 cases in Minnesota. We have been able to contain the rate of increase fairly well, but persons infected with HIV are still out there spreading the disease, unknowingly in many cases. So part of our mission is to get out there and convince people engaged in high-risk behavior that it's important to be tested for HIV and to change their high-risk behavior.



SISTER MARY MADONNA ASHTON

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*Sister Mary Madonna Ashton has been Minnesota's commissioner of health for seven years. The job has not been easy. In the beginning, skeptics questioned her appointment. She was, after all, a nun, and they thought she would have to deal with the explosive issue of government-funded abortions.\* Besides, she was C.E.O. of St. Mary's Hospital and Rehabilitation Center in Minneapolis, a job that gave her too narrow a view of health care, they thought. Anyway, physicians had always been our state's commissioners of health.*

*But Sister Ashton weathered the initial storm of skepticism; early on she proved herself to be reasonable, worldly, and tough. As she was accepting the job of health commissioner, AIDS appeared on the horizon. As AIDS grew into an epidemic, Sister Ashton responded with sensitivity, clear thinking, and political skill. With the help of a dedicated team of epidemiologists, and ahead of most states, she has initiated systematic testing and counseling, partner notification, and a thorough, ongoing educational program to eradicate the disease.*

*During her tenure, Sister Ashton has also been preoccupied with the mounting fragility of Minnesota's hospital and medical system. The twin impact of Medicare's prospective payment system and HMO competition decreased hospital revenues, and HMO price wars caused a series of related events—failure of marginal HMOs, dropping of rural HMO enrollees, and undermining and weakening of the entire health system. These developments led to the questions: Is health care a public service or a private business? Should Minnesota have a health plan to cover all its citizens? Who should be responsible for assuring the financial stability of the system?*

*I went to Minnesota's health commissioner with some of these questions.*

\*Actually, it is the Minnesota Department of Human Services that is involved in funding medical care, including a limited number of abortions.



## A Human Services Advocate

**REECE:** *Ms. Wynia, let me start by asking you what your job is and what your responsibilities are.*

**WYNIA:** Currently, I am the commissioner of the Minnesota Department of Human Services, a large agency of about 7,000 employees. Most of these people are involved in some kind of direct care and work at a state nursing home or regional treatment center. Here at the central office, we have about 1,000 employees who are involved in planning and overseeing Minnesota's human services

system. Included in our activities is the supervision of the state's income maintenance programs and the various health care programs such as Medical Assistance, General Assistance Medical Care, and the Children's Health Plan. The department has one of the largest budgets in state government, and more than half of it is spent on health care.

### A DFL Leader

**REECE:** *From 1987 to 1989 you served as majority leader for the*



ANN WYNIA

*Minnesota House of Representatives and DFL caucus and as chair of the Committee on Rules and Legislative Administration. Did that position prepare you for what you're doing now?*

**WYNIA:** Yes and no. Serving in the Legislature as majority leader and, before that, as chair of the Appropriations Division for Health and Human Services, was good preparation. It gave me an opportunity to become much more familiar with the department and its programs, to get to know the constituencies it serves, and to learn more about some of the issues and controversies that are central to the department's mission. Service in the Legislature also gave me an opportunity to practice some negotiation skills and to participate in the formation of public policy. Still, walking into this building as commissioner of human services and realizing that I am in many ways responsible for the delivery of the department's programs is a big challenge. I'm fortunate, because I work with good

*As will become quickly apparent in this interview, Ann Wynia fits the bill of a compassionate politician. She is in government to help people, and she believes government should help those who cannot help themselves.*

Ann Wynia is a prominent member of the DFL party. She has served as chair of the Appropriations Division for Health and Human Services, as majority leader of the DFL, and now as commissioner of the Department of Human Services, one of the largest agencies of the Minnesota state government, with 7,000 employees.

She is an advocate for those who cannot always find someone to articulate their cause. These include children, pregnant women, and the uninsured. For her efforts on the part of the vulnerable in our society, she has received a number of awards. In 1987, she received the Children's Champion award from the Minnesota Children's Defense Fund; in 1988, she was recognized by the United States Department of Health and Human Services for her commitment to early childhood development; and in 1989, she was one of eight recipients of the American Medical Association's first Nathan Davis Awards for contributions by public officials to the betterment of health care in America. The other recipients were: C. Everett Koop, M.D., former surgeon general; Lowell Weicker, Jr., former senator from Connecticut; Henry Waxman, representative from California; Donald Lindberg, M.D., director, National Library of Medicine; William Schaefer, governor of Maryland; Vincent Schoemehl, mayor of St. Louis; and Gene McNary, St. Louis County executive.

From her remarks, I gather that Ann Wynia believes that government, either national or state, ought to pay the cost of health care for everybody businesses don't cover. If the national government doesn't pay for the uninsured, then the state ought to at least try.

*continued*

deputy and assistant commissioners and division directors.

I've learned that the commissioner's responsibilities exceed a legislator's. As I've told some of my former legislative colleagues, I always knew it was difficult to pass the laws, and now I have found out it's just as difficult—if not more so—to implement them.

## The AMA Nathan Davis Award

**REECE:** Last October the American Medical Association gave you a national award—the Nathan Davis Award—for promoting public health and said you had been very imaginative and innovative in promoting the causes of children and the needy. What activities were you involved in that led to that award?

**WYNIA:** The AMA recognized my participation in developing and passing legislation to expand health care coverage for pregnant women and children in Minnesota, and I

greatly appreciate that recognition.

In 1987 I was the author of a bill that created the Children's Health Plan. This program is partially financed by a modest fee from the families it serves but largely subsidized by public monies. It addresses the needs of "the working poor," those people who are working and don't qualify for Medical Assistance because their family income exceeds 185 percent of the poverty level. These families make too much money to qualify for Medical Assistance, but not enough to pay for their own health insurance, so they go without. I was very concerned by data indicating that these families had a greater risk of premature births and were more likely to have children with chronic conditions and long-term health consequences. I realized that we needed to invest more in health care during a child's early years. For a very modest investment per child, we've been able to provide access to basic health care

through the Children's Health Plan.

When I first wrote the bill in 1987, we were only able to appropriate enough money to cover children up to age 6; the next year we covered children up to age 8; then in 1989, I authored legislation that, when implemented, will cover basic health care needs of children up to age 18.

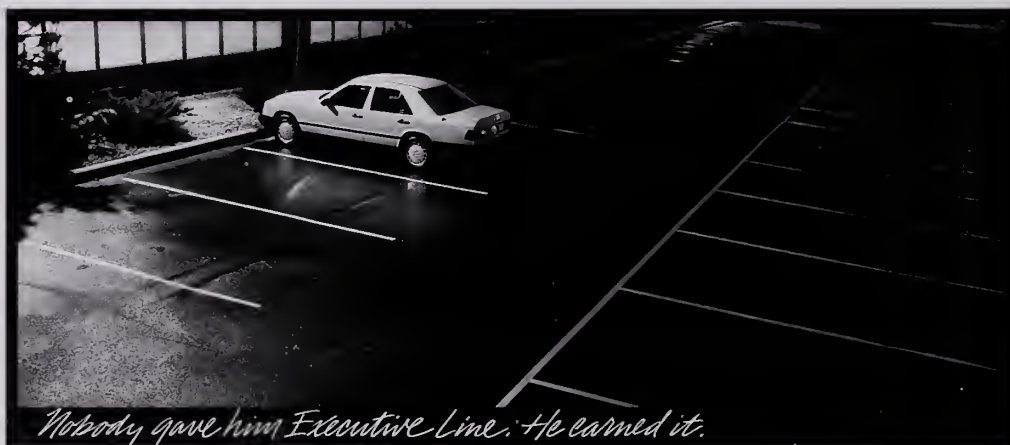
## Caring for the Uninsured

**REECE:** If memory serves me correctly, about one-third of this country's uninsured or underinsured are children.

**WYNIA:** That's correct. A large proportion of the uninsured are children, and many of them don't need expensive health care services.

**REECE:** They need immunizations and that sort of thing?

**WYNIA:** Exactly. They need the kind of early care that can prevent the more expensive care later on.



*Nobody gave him Executive Line. He earned it.*

REECE: You also said you were involved as an advocate for pregnant women. How did that evolve?

WYNIA: When we passed the Children's Health Plan covering children up to age 6, we also made pregnant women eligible for that coverage. We recognized that providing health care for pregnant women is providing prenatal care and increasing the likelihood of delivering a healthy baby.

REECE: What sort of basic health care does a pregnant woman receive?

WYNIA: Physicians' services are covered, but hospital fees are not covered, and that is a big gap. We discovered at the final stages of passing that legislation that less money was available than we had hoped. To maximize the number of children who could be covered, we elected to exclude hospital coverage. We reasoned that a family eligible for the Children's Health Plan might be close to the Medical

Assistance eligibility level. In the event of a severe health problem that required extensive hospitalization, patients may become eligible for Medical Assistance after paying a certain amount themselves. It was one of those hard choices that none of us likes to make, but we chose to make children's access to the basic health care services our priority.

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**"I always knew it was difficult to pass the laws, and now I have found out it's just as difficult—if not more so—to implement them."**

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REECE: How does all of this tie in with the Healthspan bill Rep. Paul Ogren, DFL-Aitkin, introduced in the state Legislature last year?

WYNIA: Rep. Ogren's Healthspan bill is visionary, because it seeks to extend health care cover-

age to all of the uninsured in our state and to establish a financing mechanism based both upon the insured person's financial participation and employer contributions. The Healthspan proposal would cover substantially more people than the Children's Health Plan. With the Children's Health Plan, we took a first step toward covering the uninsured, but many people's health care needs remain unmet because of their age or income. Rep. Ogren's proposal would extend health care coverage to more people as well as include such services as hospitalization.

REECE: There are about 450,000 uninsured in Minnesota, and his bill initially was pegged at \$300 million. How many children does the Children's Health Plan cover, and what is its cost?

WYNIA: About 11,000 are currently enrolled, and the annual cost is projected to be about \$3.5 million.

*continued*

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## Good Care vs. Low Cost

**REECE:** *What concerns you most about what's going on in health care right now?*

**WYNIA:** I am very concerned about the provision and cost of health care. The system creates some real economic disincentives in our work force. Let me give you some examples: I have heard stories about how an individual's employment is jeopardized because that person has a health problem. The employer is concerned that this person's health status will run up the company's group health coverage so much that the employer will either have to drop employee health care coverage altogether or lay off the sick or disabled employee.

One southwestern Minnesota school district experienced an exponential increase in its health insurance premium because a couple of its employees had some severe health problems. The school district had to contemplate whether or not it could continue to afford group health coverage.

We need to recognize that the difficulties in obtaining health care, in addition to jeopardizing a person's life and health status, have ramifications that ripple through our whole system of employment and may even make it impossible for people to support themselves. It's critical that we as a nation solve this problem of insuring Americans with basic health care in a way that doesn't adversely affect our economy.

**REECE:** *One of the problems in a state like Minnesota is that mandated benefits are very generous. The generosity of those benefits, coupled with a lot of self-insured companies, drives premiums up to astronomical heights for the small employer or self-employed person. Do you consider this a significant problem?*

**WYNIA:** That is a good question and very difficult to answer. Certain mandates have attracted most of the criticism. One, for example, has to do with wigs or hair transplants for people with certain

kinds of health care problems. Despite all the criticism, that particular mandate and a lot of the others are not particularly costly to the total system. It's a real challenge for us to try to determine what basic needs should be covered. Perhaps we need a better mechanism for sharing the cost of certain benefits between the insured and the insurer—not just eliminating a lot of benefits that only a few people need. Those few people may need them very badly.

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**"The difficulties in obtaining health care, in addition to jeopardizing a person's life and health status, have ramifications that ripple through our whole system of employment."**

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**REECE:** *But in a highly taxed state like Minnesota, it's very difficult to strike that balance between taxing employers more or imposing a general tax on the population. It's hard to find the money to do all of this, isn't it?*

**WYNIA:** The decision about the health insurance mandates is only indirectly a tax issue. Employers talk about it because they talk about the cost of their health insurance premium. Some people say, "Don't mandate all these things," but then others say, "If we don't mandate that they be covered as part of private health insurance, then the cost is going to fall back on the public sector."

Chemical dependency treatment is a good example. We could certainly save health insurance premium dollars if we didn't cover chemical dependency treatment, but the cost to the public would be tremendous if people didn't have access to chemical dependency treatment. Are we going to provide treatment purely through tax dollars? Are we going to deny the service to people who don't have means to pay for it, and what does that mean in terms of lost human

productivity and other kinds of social problems?

That's why I'm not one of those people who says, "Yes, we have to get rid of all the mandates." Instead, I say, "Let's think through what is reasonable for the insurer to pay. Then let's look at what is reasonable for the insured to pay."

## A Look at Health Care Reform

**REECE:** *What do we need to keep in mind as we look at revamping the health care system and meeting its challenges?*

**WYNIA:** The whole subject of health care is a very challenging one because it's so critical to our society. Americans tend to perceive health care as a basic right even though it's not in the Constitution. Public opinion would tend to confirm that most Americans believe sick individuals have a right to access to health care. The real challenge for those of us who work in health care or in public policy is to figure out a way to fulfill people's expectations about the right to health care in ways that are also respectful of people's ability to pay. That's not an easy issue.

**REECE:** *Do you think it is possible for a state to guarantee access to health care in the light of an uncertain national policy?*

**WYNIA:** Frankly, I'm not sure of the answer. This issue is so big and potentially so costly that it would be risky for a state to go it alone. It could introduce some real inequities between Minnesota businesses and out-of-state businesses. I'm not prepared to say that Minnesota shouldn't seriously examine how we might increase access to health care. Whether or not we can ultimately solve the problem all by ourselves I don't know, but I think it's too early to say we shouldn't even try. ■

# LETTERS TO THE EDITOR

## No 'Fruit' in Nazi Data

I want to commend *Minnesota Medicine* for devoting considerable space to discussing the role of the medical community in this century's catastrophe, known as the Holocaust (*Minnesota Medicine*, October 1989). It saddens me to read the Talmudic-like discussions over the use of Nazi medical "data." Your title, "Bitter Fruit: the Legacy of Nazi Medical Experiments," lends support to the argument that such "data" are legitimate and may be honored by citation in the medical and scientific literature. No fruit can ever come from Auschwitz or Dachau or any other death camp—collectively the *anus mundi*.

We may coldly reason that any "data" obtained from tortured and debilitated subjects, starved and beaten, could not have any physical value. We might also argue that any "data" should not be respected when the human subjects gave no consent. These arguments are not relevant. The prohibition of the medical community's use of Nazi material must rest on our uncompromising outrage. We record and remember the evil acts against the innocent; we do not respect the work of the guilty. We must confront the Holocaust with silence and horror—not with assimilation. "The work of Auschwitz," George Steiner wrote, "lies outside speech as it lies outside reason."

The banality of evil, so often quoted, then derived from the bureaucratically designed and technologically executed Final Solution. The banality today comes from a cottage industry of Holocaust acade-

mia, trivializing miniseries, or kitschy movies. To contemplate the use of Nazi "data" would be tantamount to accepting the Nazi evil ways. To cite Nazi records, to find "fruit" in experiments where children were injected with typhus, young men castrated, women forced into ice baths, would be our banality. No lessons were to be learned.

I also wish to bring before your readers the fact that tissue samples and skeletons from Nazi victims, some of whom were children, are being used today in West German medical schools (*Nature* 339:498 and 337:195, both 1989). This practice, I assert, is no different than the citation of Nazi experiments.

Seth Corey, M.D., M.P.H.  
Instructor in Pediatrics and  
Research Associate in Physiology  
Tufts School of Medicine  
Boston, Massachusetts

## Humanizing Our Profession

The article by Delores Lutz ("Residency Reform: Medicine Examines Its Age-old Rituals," November 1989 *Minnesota Medicine*) makes any number of small points that are open to debate, and I am sure it will be the subject of much discussion. In looking at the larger issue of how medicine as a profession has chosen to treat its new colleagues, it is a sad comment on this profession that residents have had to resort to unionism and to legislation to correct a situation that, were it happening to any other group, would be regarded as intolerable. Rather than being dragged into the future by outsiders, we should ourselves take

the lead in humanizing our profession.

David Scott, M.D.  
Park Nicollet Heart Center  
Minneapolis, Minnesota

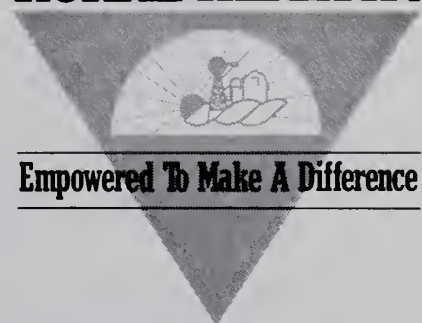
## Essential Role Models

I read with great interest the interviews with Dr. Jesse E. Edwards and professor Robert H. Anderson in the October 1989 *Minnesota Medicine*. The responses were insightful and, in some instances, controversial. In this day, when role models are so essential in medicine, the two interviews also served another purpose: They provided a striking contrast between true humility and overbearing arrogance.

(Note: Although I trained with Dr. Jesse E. Edwards, and although we share the same surname, we are not related.)

William D. Edwards, M.D.  
Professor of Pathology  
Mayo Medical School  
Rochester, Minnesota

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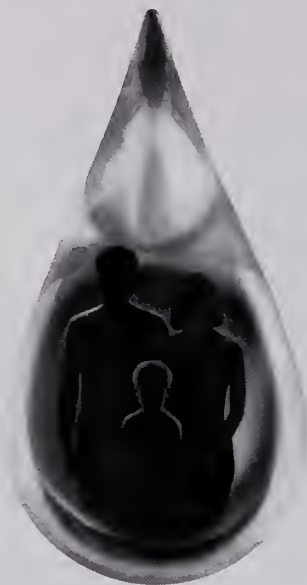
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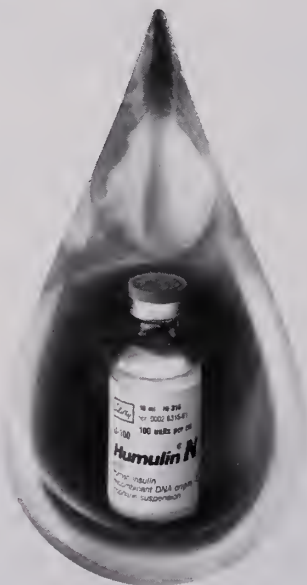
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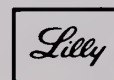


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# Cost Shifting and the Uninsured Symptom Cured, Malady Worsens

Allan N. Johnson, Ph.D.

**T**wo articles I co-authored in 1982 and 1983 on hospital cost shifting<sup>1,2</sup> spurred considerable debate on the issue.<sup>3,4,5</sup> At that time, I argued that cost shifting was a problem for hospitals because many large payers—such as Medicare, Medicaid, and the bigger health plans—were demanding discounts from hospital charges on the basis that they should pay only for the costs of care associated with their patient populations. I predicted that hospitals would soon exhaust the pricing flexibility that enables cost shifting to occur because, eventually, no one would be willing to pay for anything but their own care. Hence, hospitals' ability to finance "free" care to the poor would be constrained.

Some readers objected to these comments, arguing that the practice of hospital cost shifting was either outrageous or mythical and, therefore, should not be discussed. Many said that cost shifting was simply a device used by hospital managers to achieve desired revenue targets that, once exposed, should be eradicated by the market (via "prudent purchasers") or controlled by policy-makers. Others expressed the opinion that the cost-shifting issue was diversionary, representing nothing more than hospital managers complaining about having less money or fewer pricing options than they had before. On the other hand, some contended that the practice of cost shifting was the least expensive way for society to redistribute the income necessary to provide health care for the uninsured.<sup>6</sup> Nonetheless, it seems that the majority opinion in the early 1980s was that

cost shifting was unnecessarily exacerbating hospital cost inflation and should not be tolerated.

## Where Are We Now?

As we enter the 1990s, it is appropriate to examine where we have come on this issue and the health policy implications it poses. In markets like Minneapolis/St. Paul, the average hospital has more than 75 percent of its inpatient business on some form of discounted, fixed-price reimbursement with large payers. The remaining patients work for large, self-insured employers, pay for their own health care, or do not pay at all. In short, there is nobody left to whom hospitals can raise their prices to recover the costs of providing free care. Thus, the cost-shifting "game" has changed in two respects. First, in contrast to the early 1980s, most everyone plays the game; those who formerly were passive observers either have become participants or are no longer in the health insurance business. Second, cost shifting, which used to take place among insurers, now appears to go on between those who have insurance and those who do not. This latter group, who were previously beneficiaries of the game, are now increasingly its casualties.

The last decade's preoccupation with cost shifting and its merits focused on a symptom of a much larger problem: financing health care services for the uninsured. Cost shifting was initially a "painless" way for hospital managers to deal with this problem—everyone who could paid a little more to cover the costs of those who could not pay. However, because public

and private payers alike are no longer willing to pay for the care of the uninsured, hospitals do not have this option. These events and other factors brought the uninsured problem out into the open in the late 1980s, leading to more discussion of policy solutions and financing alternatives and to identification of this population's health needs.

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**"Cost shifting . . . now appears to go on between those who have insurance and those who do not."**

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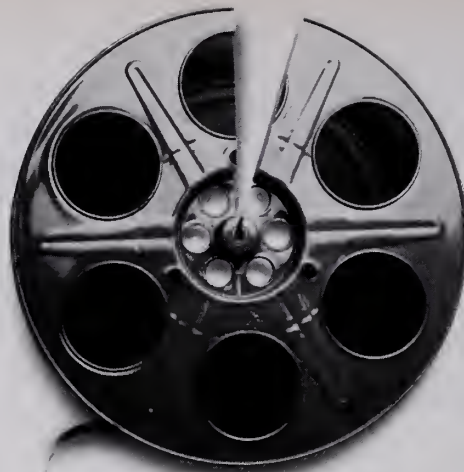
If the symptom of cost shifting is a topic of interesting debate, the problem of the uninsured is nothing less than frightening. The Census Bureau estimates that 37.4 million Americans had no health insurance coverage in 1987, up from 30.5 million in 1981, and that 65 percent of the uninsured reside in households where the head worked 17.5 hours or more per week.<sup>7</sup> (Other estimates have placed the number of uninsured at 31.1 million in 1987.<sup>8</sup>) In Minnesota, approximately 342,000 residents—or about 8 percent of the population—are without coverage.<sup>9</sup> In Minneapolis/St. Paul, patients with no health insurance are three times as likely to die in the hospital as those with commercial or HMO coverage, and five times as likely to leave the hospital against medical advice.<sup>10</sup> Hence, this population tends to show up in hospitals only in crisis situations, and tends not to stay there long enough to recover fully.

The early 1980s debate and handwringing about cost shifting





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and current discussion of the uninsured both point to the central theme of my earlier articles: a declining willingness to pay for the costs of caring for the uninsured. Yet, any solution to this problem will cost someone money.

### **Proposed Solutions and the Issue of Responsibility**

Four basic "solutions" to the problem of financing care for the uninsured tend to be advanced in debates on this issue. The first is perhaps not a solution per se, but rather represents benign neglect: letting the current situation continue and hope that it gets resolved by fiat. This solution relies on the status quo and the hope that some combination of cost shifting, remaining Hill-Burton obligations, and philanthropic programs suffice. Under this approach, the problem is nobody's direct responsibility. This is an approach often suggested by those who either believe that the number of uninsured persons is greatly exaggerated, or that most of them have the financial means to obtain insurance or pay for their care.

A second solution is to force nonprofit hospitals to explicitly pay for or make a financial contribution toward any public cost of hospitalizing the uninsured. This solution can take a variety of forms: taxing hospital revenues; requiring hospitals to pay property taxes, sales taxes, or municipal service fees; or requiring that hospitals provide a specified amount of "free" care each year in order to retain their tax-exempt status. According to this argument, it is reasonable for society to expect and demand this kind of compensation in exchange for its granting hospitals their tax-exempt status, so responsibility for this problem rests with hospitals (and the health care system).

A third solution is public utility regulation, such as "all-payers" rate setting, structured around the premise that the market for health services cannot or does not work properly and that government must step in to make it work. By determining hospital budgets and payment rates, cost shifting to pay for the care of the uninsured is, in

essence, regulated and the costs borne equitably throughout the market. Thus, the responsibility for the problem is shouldered by those who have health coverage.

A fourth solution is public financing, based on the notion that it is society's responsibility to care for the uninsured, and that government is society's best, most equitable financing mechanism. Here, a specific health insurance program would be developed and administered by the government, financed with or subsidized by tax dollars, to address the health care needs of those currently uninsured.

### **Assessment of the 'Solutions'**

The status quo solution, of course, is not a real option. While the market has done a good job of constraining the hospital practice of cost shifting, it has given little direction for what to do now that the uninsured are no longer a "hidden" problem. Because this underlying problem is one that few people want to tackle, the status quo approach tends to spark debate over the size of the problem rather than discussion of practical policy options.

The hospital responsibility solution has several drawbacks. Caring for the uninsured is simply a responsibility too massive for the nonprofit hospital industry to assume. In Minnesota, the "public" cost of subsidizing (or providing via group rates) basic coverage for the state's 342,000 uninsured citizens has been estimated at \$150 million annually (with beneficiaries contributing on an ability-to-pay basis an additional \$250 million in premiums).<sup>11</sup> If the current reserves of all Minnesota hospitals were devoted toward this public cost, they would be depleted in less than one year.<sup>12</sup> Moreover, hospital "free" care requirements do not enable the uninsured to gain access to the much-needed primary care system; rather, they promote crisis care. The problems of today's uninsured population clearly outstrip nonprofit hospitals' capability to resolve them alone.

The rate-regulation scenario legitimizes and regulates cost shifting

as a means of paying for the uninsured, but it, too, has problems of its own. All-payers systems require federal waivers, which are not easy to obtain and entail Medicare and other payers being willing to pick up their share of the financial burden. These systems are also largely limited to addressing the hospital or crisis-care needs of the uninsured. In addition, all-payers systems tend to evolve out of and focus on cost containment and are not explicitly set up to deal with the comprehensive health problems of the uninsured.

The public financing option seems to breed cautioned interest but political obstacles. Increasing taxes—especially for what some label as "another welfare program"—is not politically popular. The media have reported that Sen. Edward Kennedy's national health insurance proposal would call for employers to bear \$18 billion of the \$30 billion annual estimated cost. The proposed "Healthspan" solution for Minnesota, which included a proposed 1 percent payroll tax on businesses that did not offer health insurance to their employees, was opposed by business and industry, and its programmatic implementation was prevented during the 1989 legislative session. This approach also has an inherent actuarial problem: while the uninsured as individuals or small groups often cannot obtain insurance at affordable (or group) premium rates, pooling this group also segregates a considerable amount of bad insurance risk into one program. This artifact adds to the cost of a program that nobody really wants to contribute to anyway. Nonetheless, this approach appears to be the only promising solution for both financing and addressing the comprehensive health needs of the uninsured.

### **Conclusion: What Now?**

Hospital cost shifting remains a major problem for just one group: the uninsured. In Minneapolis/St. Paul, hospitals continue—for now—to provide crisis care to the uninsured by slowly consuming the hos-

*continued*



pitals' reserves. If Minnesota did not have such generous Medicaid eligibility criteria, the burden would be even worse. Two things appear evident: 1) The present system of providing care for the uninsured will not continue. Hospitals cannot shoulder the growing financial burden, and crisis care for the uninsured is increasingly being recognized as bad public health policy. 2) Changes in the cost-shifting game have made more visible our large and growing uninsured population. The issue is now widely recognized as a very costly and complex problem but is something for which there is a declining willingness to take financial responsibility.

The perplexing question is, of course, what do we do now? I believe at least two things must happen before we can make any real progress. First, decision makers must accept the ambiguities that surround this problem, such as the "pent up demand" and "lack of data" issues. In almost every discussion of the health problems of the uninsured, it is argued that nothing programmatic should be done because, once we provide access to insurance coverage, a backlog of demand will come forth and bankrupt the program. It is also argued that because we lack precise information on the composition of this population and its health needs, we cannot appropriately structure a program. These statements are undeniably true, but they are used as arguments to do nothing. Debating whether the uninsured will begin using health services if covered, or debating what their needs are, only serves to avoid addressing more difficult questions about financing a viable program. These points are not for debate, but rather represent ambiguities that we must acknowledge and agree to tolerate—at least temporarily.

The second requirement is that decision makers at all levels show courage, leadership, and the common sense to acknowledge that sooner or later we are going to have to pay for the problems of the uninsured. We have run out of painless and convenient short-term

options, such as cost shifting, to cover up or solve this problem. Lip service is often paid to the plight of the uninsured, but, ultimately, the tragedy of the commons ("it's not my problem") prevails. We may like to think that health care is a right in this country, but our actions and lack of health policy in this area are proof that this is not the case for a large segment of our society. Rhetoric from leadership will not save us from facing this problem—but will, unfortunately, delay any action. The U.S. Bipartisan Commission on Comprehen-

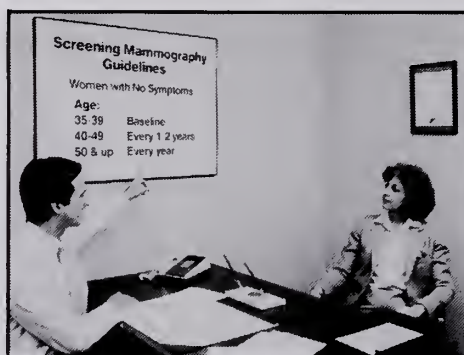
sive Health Care, and Minnesota's Health Care Access Commission, it is hoped, will stimulate the beginning of real policy progress.

As Winston Churchill once said, "After exhausting all other possibilities, Americans can be counted on to do the right thing." We have exhausted the other possibilities to address providing health coverage to the uninsured. What remains at issue is whether Churchill is right.

*Allan Johnson is president of the Twin Cities-based Council of Hospital Corporations.*

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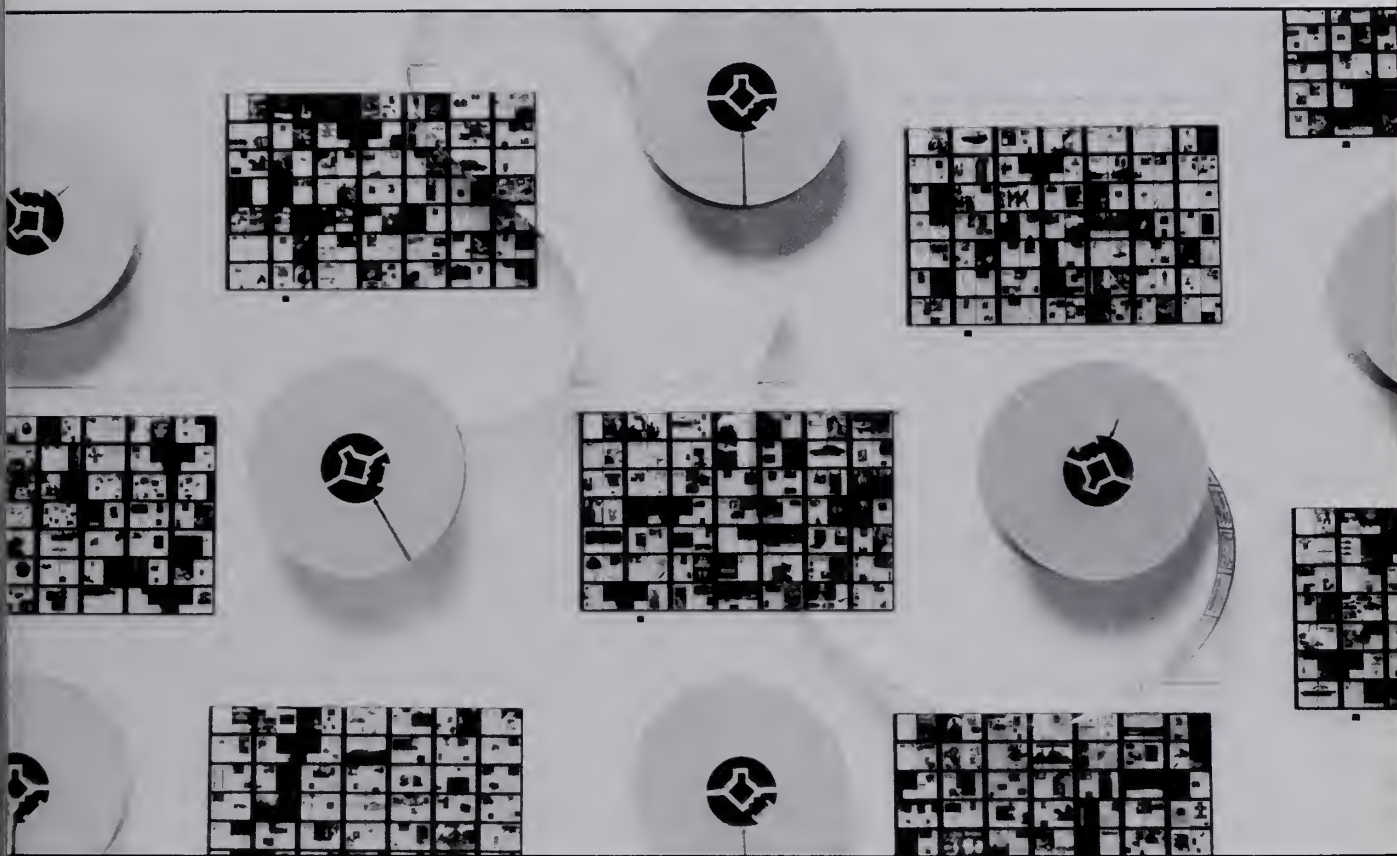


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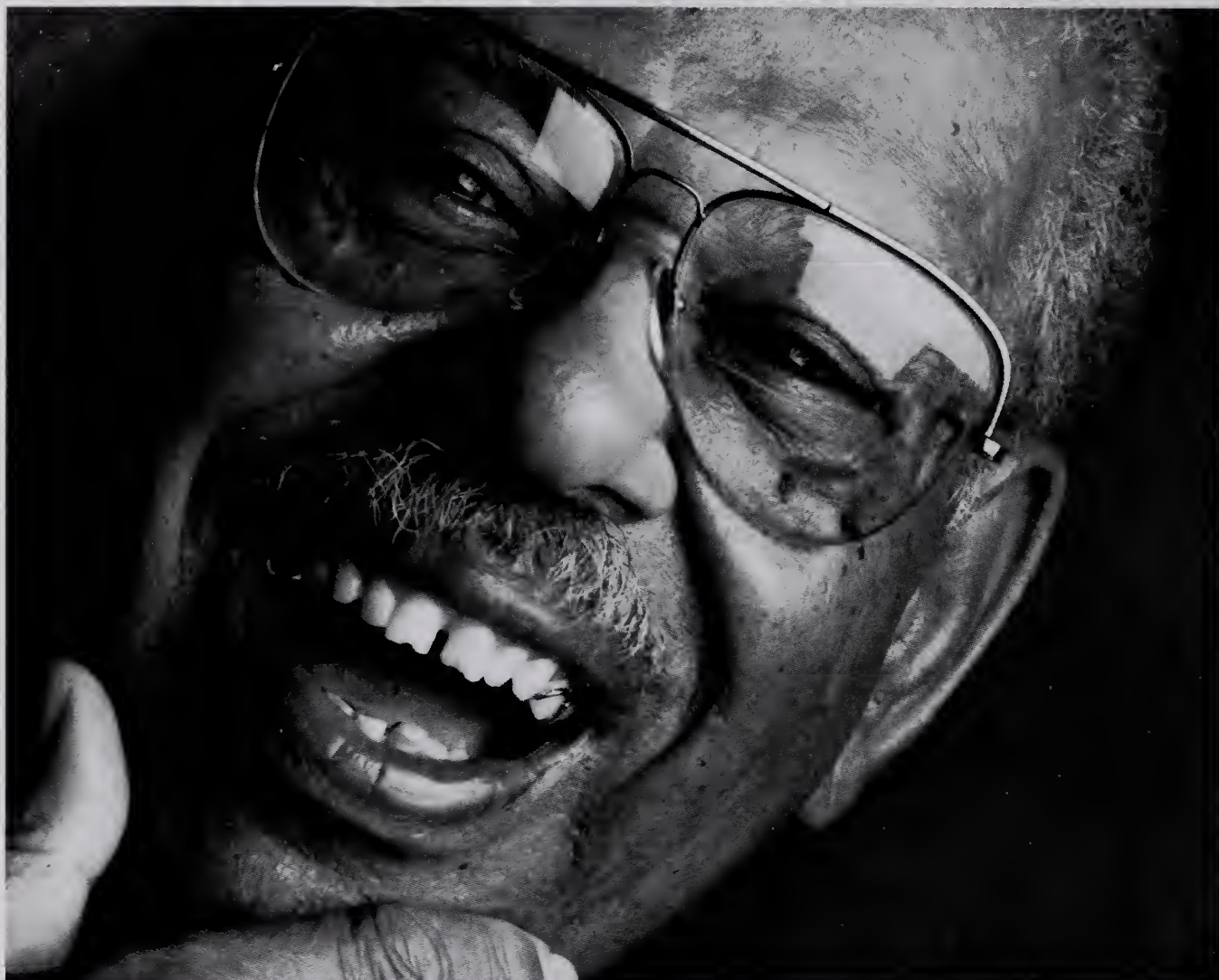
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Its stiff white hairs.  
Even in February, six sleepers weren't  
Enough for you to snuggle into.  
Another day, ready for your people,  
You might have entered the woods  
To seek them and let the cold take you;  
As it is, people saw you go down  
And well-meaning brought you to this  
Warm room  
With its blue walls  
And strange family.

JAMES G. BRUEGGEMANN, M.D.

James Brueggemann is medical director of the Duluth Clinic, Ltd.



# PHYSICIAN EXECUTIVES

## Can They Manage Both Worlds?



*BY MIRIAM K. FELDMAN*

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**"More and more physicians are making the move, working as managers for hospitals, HMOs, and insurance companies. They are becoming CEOs or medical affairs directors for large health care corporations."**

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In the summer of 1987, Paul M. Spilseth, M.D., took a one-year leave from his family practice in Stillwater and went back to the classroom. Spilseth, his wife, and their three children moved to Madison, Wisconsin, so that he could become a full-time student in the University of Wisconsin's program in administrative medicine. The family lived on some savings (they made no major purchases for two years) and a fellowship provided by the Bush Foundation. Spilseth saw no patients that year. Instead, he spent his time in classes, studying such subjects as the economics of health care, the politics of health policy, marketing, management analysis, health law, health accounting, and cost-benefit analysis.

At the end of the year, Spilseth returned to Stillwater, where he resumed the practice he had established nearly 20 years earlier. With his years of clinical experience and his newly earned master's degree in administration, Spilseth is well qualified to become the CEO of a large health care organization or to move into some other type of management position. He has, in fact, assumed some administrative responsibilities at his 17-member clinic. He is president of the group, he attends all committee meetings, and he runs the clinic's quality assurance program, but none of that is what he calls "paid employed management work."

In reviewing his experiences for the Bush Foundation, Spilseth wrote: "This degree and this training make me qualified to leave clinical medicine and move into an administrative role. . . . Yet I am

ambivalent about leaving medicine, which this type of change is likely to demand. I have a sense of loyalty to patients that I have grown to know and love over many years."

If Spilseth decides to leave clinical medicine to work full-time, or even part-time, in a management position, he will join a growing number of physicians who are moving over to the administrative side of medicine. More and more physicians are making the move, working as managers for hospitals, HMOs, and insurance companies. They are becoming CEOs or medical affairs directors for large health care corporations.

Physicians are becoming managers because the opportunity is there: health care is becoming a big business. Jobs in management are opening up as a result of the growth in managed care, the squeeze on dollars, and the need to be as efficient and cost effective as possible.

Physicians are also becoming managers out of an instinct for self-preservation. Everyone—third-party payers, the federal government, and the corporate managers of medicine—is telling them what to do. Many physicians want to regain control of medicine, and they see management as a way to do that.

Of course, there always have been leadership opportunities for

physicians. Traditionally, physicians have served on planning committees and hospital boards, or headed clinical departments. Now, the opportunities are different; physicians are expected to get involved in the business side of health care.

Nobody knows exactly how many physician managers there are today, but everybody agrees that there has been an explosion in the numbers. Much of the growth has occurred within the past three years, according to Roger Schenke, executive director of the American College of Physician Executives (ACPE), formerly the American Academy of Medical Directors. The exact number is not known because it depends on how you define growth, Schenke explained. On the high end, there may be as many as 50,000 to 70,000 physicians who are managers, if you count physicians who serve in such roles as department chairs, board members, or clinic heads.

In a survey conducted by the administrative medicine program at the University of Wisconsin, 14,000 physicians said they were involved in full-time administrative work. Schenke uses that number as an indication of growth in the field, although he cautions that it does not accurately indicate how many of those physicians still are practicing.

ACPE charts the physician-manager explosion by its own growth. The organization was started in 1975 to encourage physicians to become more involved in management. Today its enrollment has reached 4,800, and it is gaining more than 100 members a month.

Schenke dates the upturn in



interest in management to about 1980. It started, he said, with increased competition, followed by the advent of DRGs. Then managed care became more predominant, and physicians began to feel they were losing their influence over what was happening in health care. "We see more and more decisions taking place in the board room," Schenke said.

When DRGs came along, Marianne Kanning, M.D., decided it was time to become more involved in the management of medicine. But DRGs were the tip of the iceberg, said Kanning, who divides her time between practicing family medicine and serving as medical director of St. Francis Hospital in Shakopee. Kanning recited the by-now-familiar litany: third-party payers were writing the rules, telling physicians how to treat patients; Blue Cross and Blue Shield was writing protocols; and the federal government was telling physicians when a patient had to leave the hospital. "It shouldn't be a lay administrator making those decisions," Kanning said, especially when it's "always the physician who takes the liability." If you're going to bear the responsibility, she argues, you also should be helping to make the rules.

Unfortunately, most physicians tend to be reactive, rather than proactive, Kanning said. "Physicians have a tendency to put 98 percent of their efforts into patient care." That leaves them no time for the business decisions, so those decisions are made with very little, or no, physician input, she said.

"I just want to be proactive," said Kanning, who can be, now



that she's medical director at St. Francis. In fact, her job is typical of the kind of management opportunities that have been opening up for physicians. Until a few years ago, St. Francis, a 125-bed hospital, didn't have a medical director, but in 1987, new hospital management created the position for a physician. Kanning serves as a liaison between the administration and the medical staff. She communicates with physicians about how to provide cost-effective treatment, and she brings physician concerns to Blue Cross and Blue Shield. It's a delicate balancing act and a lot of work. "It's amazing to figure out who did the work [before the job was created]," Kanning said. "Was it on autopilot?"

**U**ntil recently, it wasn't as necessary for anyone to do the sorts of things Kanning does, because medicine was a different kind of busi-

ness. Observers talk about medicine's transformation from a cottage industry to a big business. Health care, like every other business in America, has gone through a "corporatization" process, the ACPE's Schenke argued. "There used to be the corner butcher and corner grocery. You didn't need management when you had the corner grocery store. Then they all moved into bigger and bigger organizations. That's exactly what's happening in health care."

Alvin Schultz, M.D., concurred. "It's gone from a cottage industry to a big business. What's changed is the physician in the neighborhood over the drug store doesn't exist anymore."

The change from a more personal industry to big business requires a new kind of awareness, Schultz said. "[Physicians] are dealing with corporate people who are sophisticated and well trained. And they're at a disadvantage unless

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**"The physician manager has more credibility than a lay manager, and credibility is an important ingredient in this relationship between manager and front-line physician."**

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they can come up with people who understand the dollars and cents and are able to read a balance sheet."

But it's hard to do both—practice medicine and manage it, Schultz said. Consequently, some physician managers choose to discontinue their practices, as Schultz has. The former chief of medicine at Hennepin County Medical Center is now senior vice president for the medical affairs division of Health One, a large multihospital corporation. In that position, he is the link between the hospitals in the corporation and the administration.

One of the issues Schultz deals with is the use, and overuse, of clinical resources. In fact, it's hard to imagine a health care organization not faced with that issue in this age of efficiency and cost containment. Schultz and others argue that the manager who brings cost issues to the attention of practicing physicians should be another physician. The physician manager has more credibility than a lay manager, and credibility is an important ingredient in this relationship between manager and front-line physician.

"Physicians talking to physicians and dealing with physicians have a much better potential for getting physicians to change and to adapt to the new changes going on in the health care system," Schultz said. "If you're going to question someone's decision and what they're doing, you have to have the kind of information that will convince them what you're saying has some credibility." In other words, you have to speak their language.

**T**here also is consensus that the physician manager must have clinical experience. Some people go directly from medical school into management, without doing a residency, said John Kralewski, Ph.D., professor and director of the Division of Health Services Research and Policy at the University of Minnesota. "I've argued they'd better do a residency first and become clinically accepted and then move into management full time," he said.

In fact, this belief is so strongly held by the University of Wisconsin's administrative medicine program that it will not accept students unless they have had a minimum of five years' clinical experience.

It helps to have been on both sides, Schultz explained. "Depending on which side you're on, you have tunnel vision. You see only the vested interests of that faction. A practicing physician sees only the problems of physicians," he said. "When you move into management, you begin to see both sides. You bring with you experience and knowledge, and you begin to have ideas about how to solve some of those problems. I was aware of problems managers had, but when I crossed over to the other side, I began to appreciate much more the issues that hospitals and corporations face."

As James Reinertsen, M.D., put it: "If you just got an M.D. and went into administration, it doesn't count. You have to have been in the trenches—had some wounds

yourself." Reinertsen is the president and CEO of Minneapolis' Park Nicollet Medical Center, a multi-specialty group practice with 300 doctors and 1,700 staff. When he came to Park Nicollet in 1978, he practiced rheumatology and taught at the University of Minnesota. He was content to be, as he puts it, "an academic clinical rheumatologist." As events unfolded, Reinertsen was asked to start a wellness program at the medical center and suddenly found himself dealing with payrolls and a struggling little business. It was a baptism by fire, he said, and he loved it.

Reinertsen conceded that a non-physician could do his job, but it's not very likely, he said, because physicians have a strong need for a professional bond with their leader.

Reinertsen works closely with Joseph Mitlyng, Park Nicollet's executive vice president and chief operating officer. Mitlyng brings skills to the operation that Reinertsen does not have. "I've got a Harvard M.D.; he's got a Harvard M.B.A.," said Reinertsen, who has a broad vision of his responsibilities. "I'm a change agent and a builder of an organic organization."

The belief in a division of labor, which Reinertsen deeply values, is shared by many other physician managers. Most agree they don't know enough about finances to run an organization effectively. "I can talk to the financial people, but I wouldn't presume to replace them," said Paul Hamman, M.D., a pulmonary specialist who spends three-fourths of his time as director of medical affairs at North Memorial Medical Center. Hamman is



# Where to Go for Management Training

By Miriam K. Feldman

**M**any physicians are finding that the M.D. after their name just isn't enough. A lot of them are going back to school and adding an M.B.A. to their list of credentials. Even those who are not earning full-fledged degrees are spending time back in the classroom studying subjects such as principles of accounting, cost-benefit analysis, and health law.

Paul Spilseth, M.D., took such classes at the University of Wisconsin's program in administrative medicine. Spilseth, a family practitioner in Stillwater (see related story), received what he calls the "Cadillac" of that kind of training, because Wisconsin's is a rigorous, full-time academic program.

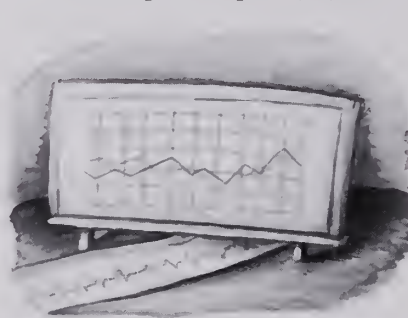
Other programs aren't as intense but are also designed to give an understanding of the business side of health care. The College of St. Thomas in St. Paul offers a "mini-M.B.A." program for health professionals.

"I looked around and there seemed to be an awful lot of people pushed into or promoted into management positions, and they had no training in management," recalls organizational consultant Peter Sammond, creator of the mini-M.B.A.

Sammond recognized that there are health professionals who need some business training. "As their practices get larger and more complex, either through growth or merger, they need to deal with other players in industry better," Sammond said. The mini-M.B.A. is designed to help them do that.

The mini-M.B.A., which is so

popular that there is a waiting list to get in, provides exposure to basic business issues in 13, three-hour classes that meet in the evening. It is not just for physicians, but Sammond definitely had physicians in mind when he created the program. "I saw physicians just starting out not having dealt with HMOs, third-party payers, the corporate managers of medicine. I saw them getting increasingly frustrated and angry, losing control over their practices . . . having third parties telling them when they could and couldn't put people in the hospital," he said. Learning about management gives physi-



cians familiarity with a new language, so they can participate in management decisions rather than turning them over to others, he explained.

St. Thomas also offers a full M.B.A. with a concentration in health care. Stephen R. Swenson, who runs the program, said physicians need more management skills. "Traditionally, they've been the scientists, the technicians, the care givers." But increasingly, they've been called on to assume more administrative functions, he said.

The American College of Physi-

cian Executives (ACPE) was founded in 1975 to encourage physicians to become more active in management. It also tries to help physicians get the skills they need to do that, said executive director Roger Schenke. He said that in the 1940s and '50s physicians moved into management when they were about to retire or felt "it was their turn in the barrel." Today physicians are becoming managers because they want to influence the profession. Many of them are getting M.B.A.s or similar training, he said, but others are jumping in without any business training.

ACPE encourages business training. "We need more effective management on the clinical side," said Schenke, who believes medicine would be more efficient if more value were placed on management roles and skills. Right now, said Schenke, health care is probably the most poorly managed of any industry.

Yet the jury is still out on what kind of training best prepares physicians to be effective managers. Physicians going into leadership roles need training; but the best way to train them is not clear, said John Kralewski, Ph.D., professor and director of the Division of Health Services Research and Policy at the University of Minnesota. "We're short on knowledge about how to be effective managers," said Kralewski, who helped start ACPE and is an honorary fellow of the organization.

Part of the problem, according to Kralewski, is that it's not easy to

**Management training to page 40**



enrolled in the non-residential administration program at the University of Wisconsin, so that he can learn more of the language of finance. As a manager, Hamman tries to bring the physician perspective to the business issues, and vice versa, to "bring to the physicians the perspective of other people."

Balancing the business interests with the medical is not easy, because it's hard to find the time to both manage and practice. "I think it's very difficult. I work a lot of hours," said Reinertsen, who works from seven until seven—on good days. However, there are weeks when he sees his two chil-

dren only when they are asleep. He acknowledges that his clinical practice is most vulnerable to time constraints (he practices six hours a week), but it is so satisfying that he hates to give it up. "It's like a safe haven in my week. I feel good about what I do. It's one place I always know I can get some rewards. It's like a short-term fix," he said.

Holding two part-time jobs is more difficult than having one full-time job, Kanning said. But she doesn't want to give up her clinical work, because it maintains her credibility with the physicians she administers. "As soon as I take

down my shingle," she said, "I become one of *them*."

Becoming one of *them* is a pitfall that physician managers have to avoid, warns Jon Wempner, M.D. "It's very important as physicians become leader-managers that they remember their primary constituents are patients," says Wempner,

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**"Jobs in management are opening up as a result of the growth in managed care, the squeeze on dollars, and the need to be as efficient and cost effective as possible."**

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who is a family practitioner in Waconia and also directs the Bush Clinical Fellows Program. "They need to keep responsibility to the patients. If they're only responsible to the board of directors or staff, they're no different than a non-physician administrator," he said. "The real issue needs to be leadership, with management as a tool."

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*Miriam Feldman is a free-lance writer living in Minneapolis.*



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# Drinking Water Contaminants Sources, Health Considerations, and Removal

Thomas E. Watts, M.D., and Rexford D. Singer, M.S.

**T**hroughout history, a clean source of drinking water has been a cherished resource, and water contamination has led to the forced abandonment of wells, springs, and even villages. The quality of natural waters varies from place to place depending on such factors as the local geology and types of human activities in that area. While it is possible to control or eliminate contaminants resulting from human activities, naturally occurring contaminants can be removed from the water only by proper treatment. This paper enumerates the potential sources of drinking water contamination, the health considerations they pose, and some of the methods of treating drinking water to make it safe.

## Water Sources and Quality

The purest natural source of drinking water is rain. In earlier times, people used cisterns to capture and store rainwater for later use. However, even rainwater is not chemically pure but contains dissolved dust particles that allow water vapor to condense into droplets. Usually, these dust particles are minute and do not constitute a health threat. Rain that reaches the land surface either evaporates, runs off into lakes, streams, or rivers to become part of our surface water, or percolates into the soil to become ground water. Water running over the land surface picks up soil particles, plant and animal debris, and microorganisms. Ground water dissolves minerals from rocks through which it moves. Rain that absorbs excessive amounts of sulfur dioxide or nitro-

gen oxides in the atmosphere may become more acidic (acid rain) and may dissolve even more substances from the soils or rocks through which it passes. In addition, agricultural practices, municipal and industrial discharges, leaking underground storage tanks, landfills, septic tank discharges, and other human activities contribute to the degradation of surface and ground water quality.

## Living Organisms

The waterborne microorganisms that are a threat to human health often thrive in the intestinal tract of warm-blooded animals and are released with fecal discharges. These include protozoa, bacteria, and viruses. The protozoan organisms of greatest concern throughout the United States are *Giardia*<sup>1</sup> and *Cryptosporidium*.<sup>2</sup> The bacteria of concern are *Salmonella*, *Shigella*, *Yersinia*, *Campylobacter*, and coliforms.<sup>3</sup> Hepatitis, polio, Norwalk, rotavirus, and other enteroviruses have been found in drinking water.<sup>4</sup> These microorganisms find their way into surface waters as a result of direct discharges of municipal wastewaters and septic tank effluents or from surface runoff from lands where animal waste or improperly treated wastewater sludges have been applied. When these microorganisms are found in ground water, it is usually as a result of surface water seepage through faulty water well construction or porous rocks that provide insufficient filtration.

The U.S. Public Health Service Centers for Disease Control (CDC) has kept statistics on reported waterborne disease outbreaks in

the U.S. since 1971. There have been 485 outbreaks involving 110,359 total cases during that time.<sup>5</sup> Minnesota has reported 10 outbreaks with 418 cases in that period. Of all the outbreaks caused by microorganisms, 59 were caused by bacterial agents, 90 by parasitic agents (primarily *Giardia*), and 40 by viral agents. An additional 244 outbreaks were classified as acute gastrointestinal illness (AGI) caused by an unknown or unproven agent. Because waterborne disease surveillance is largely passive, CDC believes that the number of outbreaks reported each year represents only a fraction of the total number that actually occur. A detailed analysis of the 1985 outbreaks (the last year for which data are available) is presented in Table 1. Since 1971, outbreaks have occurred in all types of water systems, as shown in Table 2. Physicians should, therefore, be alert to the possibility of a waterborne cause for an outbreak of community-wide gastrointestinal illness.

## Dissolved Inorganic Substances

The majority of inorganic chemicals found in water occur naturally. Their presence and concentration depend mainly upon the soils and rocks the water has contacted. These inorganic chemicals include cations (usually calcium, magnesium, iron, potassium, sodium, and, in lesser amounts, radium), anions (principally bicarbonates, chlorides, nitrates, and sulfates), and other elements such as arsenic, fluoride, and selenium that may be present in either the cationic or anionic state. These and other inorganic chemicals



TABLE 1

Reported waterborne diseases in the United States, 1985

| Biological agent        | Number outbreaks | Number cases |
|-------------------------|------------------|--------------|
| AGI*                    | 8                | 533          |
| <i>Campylobacter</i>    | 2                | 169          |
| <i>Giardia</i>          | 3                | 741          |
| <i>Salmonella typhi</i> | 1                | 60           |
| <i>Shigella</i>         | 1                | 27           |
| Total                   | 15               | 1,530        |

\*Acute gastrointestinal illness of unknown etiology

TABLE 2

Waterborne disease outbreaks by type of water system, 1971-1985

| Type of water supply system | Number of outbreaks |
|-----------------------------|---------------------|
| Individual (private)        | 58                  |
| Non-community*              | 216                 |
| Community (municipal)       | 211                 |

\*Systems for camps, parks, service stations, institutions, or industries that may be used by the public.

also may be introduced into water through municipal and industrial waste disposal practices, agricultural applications and residues, use of highway de-icers, septic tank discharges, etc.

**Hardness:** Water hardness is due to a complex mixture of anions and cations, predominantly calcium and magnesium bicarbonates. A substantial body of scientific information demonstrates a statistically significant inverse correlation between water hardness and cardiovascular diseases, although there is disagreement concerning the magnitude of the effect and whether there are protective elements in "hard" water or harmful elements in "soft" water. Much more information is needed to identify the specific factors involved, but the available evidence is sufficient to treat the relationship as plausible.<sup>6</sup>

**Sodium:** The role of excessive sodium intake in the development of hypertension remains controversial. Municipal water treatment chemicals and home water softeners can contribute to the amount of sodium in drinking water. For people on sodium-restricted diets,

knowledge of the sodium-ion concentration in their drinking water may be important.

**Calcium:** In south-central Minnesota, the concentration of calcium in drinking water may approach one-third of the concentration of calcium in milk. This would make it unwise for a patient with a history of calcium urolithiasis to drink this untreated water.

**Iron and manganese:** Upon exposure of water to air, iron in the water will be oxidized and may produce a reddish-brown color. Also, manganese will be oxidized and may turn the water purplish-black in color. This produces an unpleasant appearing and tasting water, will discolor plumbing fixtures, and may stain laundry but is of no known health consequence at the concentrations usually encountered.

**Chlorides and sulfates:** Excessive concentrations of chloride and sulfate in water may affect the taste of the water, even to the extent of making it objectionable for drinking. Also, sulfate ions in water, especially when combined with sodium or magnesium, are known to produce a cathartic effect. This effect most often is noted by newcomers or casual users of high-sulfate waters, such as travelers or visitors. However, adaptation to such waters occurs in a relatively short time.

**Nitrates and nitrites:** Drinking water with excessive nitrate and nitrite concentrations may cause methemoglobinemia, especially in infants less than 3 to 6 months of age who are fed formulas prepared with the water. Fortunately, fatalities from infantile methemoglobinemia have become rare; the most recently reported case was in South Dakota in 1986.<sup>7</sup> However, methemoglobinemia should be in the differential diagnosis of cyanosis in infants, especially in rural areas. It should be noted that boiling water with acceptable levels of nitrate may concentrate the nitrate to toxic levels. No convincing evidence of a relationship between gastric cancer, birth defects, or cardiovascular effects

and the consumption of drinking water containing nitrate-nitrogen levels up to 10 milligrams per liter has been found.

**Lead:** Excessive exposure to lead can cause serious damage to the brain, kidneys, nervous system, and red blood cells, particularly in young children and infants.<sup>8</sup> Although lead rarely occurs naturally in ground water, it can be introduced into drinking water as a result of corrosion of the lead solder used to join copper pipes. Usually not much lead enters the drinking water from older plumbing systems, because a protective coating forms on the inside of the pipes preventing continuous corrosion. The use of lead-based solder was banned in Minnesota in July 1985, and the amendments to the federal Safe Drinking Water Act of June 19, 1986, included a ban on the use of lead pipe, solder, or flux in any public water supply. However, homes constructed or remodeled a few years prior to 1985 utilizing lead-soldered copper pipe may exhibit lead levels in excess of the recommended maximum concentration because it takes two to five years for the protective coating to form. Inhabitants of such homes should be advised not to drink or cook with water that has been allowed to stand in the plumbing system overnight or longer. This water should be flushed from the system by allowing it to run from the tap for several minutes or until a temperature change is noticed. A further precaution would be to use only water from the cold-water tap for drinking or cooking. A reverse osmosis treatment system described below also would be an acceptable solution.

**Radioactivity:** Radioactivity in natural waters generally may be classified as artificially or naturally occurring. Radium-226, the most important of the naturally occurring radionuclides, occasionally may be found in surface water due to human activities but usually is found in ground water as a result of specific geologic conditions. The Safe Drinking Water Committee of the National Academy of Sciences

concluded that, "The radiation associated with most water supplies is such a small proportion of the normal background to which all human beings are exposed, that it is difficult, if not impossible, to measure any adverse health effects with certainty. In a few water supplies, however, radium can reach concentrations that pose a higher risk of bone cancer for the people exposed."<sup>6</sup> The Environmental Protection Agency has established a maximum contaminant level for radium-226 and radium-228 combined at 5 picocuries per liter and for gross alpha particle activity (including radium-226 but excluding radon and uranium) at 15 picocuries per liter.<sup>9</sup> The presence of radium isotopes in drinking water in excess of permissible standards has been found in a few community water supplies in Iowa, Minnesota, and South Dakota.<sup>10</sup> These communities rely on ground water and are implementing plans to install appropriate treatment or to use alternate water sources.

## Organic Substances

A variety of organic compounds also may be found in water. These include dry-cleaning compounds, gasoline, fuel oil, solvents, degreasers, pesticides (insecticides, fungicides, herbicides, etc.), and extracts from decaying vegetation. Many of these compounds are soluble in water and may be introduced into ground and surface water sources through normal use, by improper or inadequate disposal practices, leaking underground storage tanks, or accidental spills.

Primarily because of poor storage and disposal practices on or under the ground, shallow aquifers are much more vulnerable to contamination than surface waters. In a survey of 1,801 community water supply wells, the Minnesota Department of Health<sup>11</sup> detected volatile organic chemicals (VOCs) in 109 wells, 15 of which had VOCs exceeding acceptable levels. These included benzene, carbon tetrachloride, trichloroethylene, tetrachloroethylene, and 1,1-dichloroethylene. In another study, 15 pesticides were found in ground

water, especially in hydrogeologically sensitive areas.<sup>12</sup> The pesticides were detected most often in shallow wells close to fields where the pesticides had been applied. Atrazine and Alachlor were the pesticides most commonly detected.

While some pesticides have been shown to cause cancer in animals, the human health implications of long-term consumption of water containing low levels of pesticides are not clear. Recommended allowable levels of many pesticides in drinking water have been determined; however, to be able to apply such levels, the water must first be tested for each specific pesticide of concern to determine presence and concentration.

Pesticides and nitrates in drinking water at less than recommended levels do not seem to present a serious health concern. However, their presence should be taken as a warning sign that some action may be required to keep the levels from increasing or to find a better source of drinking water for future use.

The human health effects associated with volatile organic chemicals found in ground water at low levels do not pose an acute threat, because the risk is based on long-term continuous exposure. The Environmental Protection Agency recently promulgated maximum contaminant levels (MCLs) for eight VOCs. These MCLs, shown in Table 3, are given in micrograms per liter (parts per billion) and apply to all public water supplies. Five of these VOCs are known or suspected human carcinogens. Because any exposure to a carcinogen is considered harmful, the MCLs are set at a concentration that will limit the risk of the exposed population to not more than one additional case of cancer per 100,000 people. The exposed population includes those consuming two liters of water daily containing that concentration of the VOC over a life span of 70 years.

## Local Water Supplies

The quality of drinking water furnished by a local community will

depend upon the source from which the water is drawn and any treatment that is provided. Therefore, the quality can be expected to vary from one community to another. Information pertaining to the quality of a particular community water supply can be obtained from the local water superintendent or from the state health department. Usually it is more difficult to obtain information on the quality of a private water supply. Some inferences may be drawn from the quality of surrounding community water supplies that use the same source, but this would not reflect potential localized problems from improperly located or operated septic tanks, tile fields, animal feedlots, poorly constructed wells, etc. An accurate assessment of the quality of a private water supply requires complete chemical and microbiological testing.

## Water Testing

While it is desirable periodically to test the water from any private well, water from shallow, poorly constructed wells that becomes turbid following periods of rapid snowmelt or heavy rainfall should be tested more frequently. Timing of the water testing is very important. For instance, a private well might test negative for coliforms and nitrates during the usually dry periods of summer, fall, and winter but might test positive in the spring, when melting snow and heavy rains could lead to contamination. Newly constructed private wells usually are tested for the

**TABLE 3**  
Maximum contaminant levels for regulated organics

| VOC*                  | MCL† |
|-----------------------|------|
| Benzene               | 5    |
| Vinyl chloride        | 2    |
| Carbon tetrachloride  | 5    |
| 1,2-Dichloroethane    | 5    |
| Trichloroethylene     | 5    |
| 1,1-Dichloroethylene  | 7    |
| 1,1,1-Trichloroethane | 200  |
| p-Dichlorobenzene     | 75   |

\*Volatile organic chemical

†Maximum contaminant level, reported in micrograms per liter.

Source: Fed. Reg. 52:130 (July 8, 1987).



presence of coliforms as an indication of microbiological quality and for nitrates. Any additional or subsequent testing is left to the owner or user. People using private wells should contact their local health department to find out how and where to have their water tested as well as for assistance in interpreting results.

## Water Treatment

Public water supplies are monitored routinely for microbiological and chemical quality and must be appropriately treated to meet public health standards. A variety of "point-of-use" devices are available to remove contaminants at the tap inside the home for people wishing to improve the quality of their water, whether it comes from a municipal system or a private well. Such devices include particulate filters, adsorptive (activated carbon) filters, reverse osmosis, ion-exchange, and distillation units.

If properly installed, operated, and maintained, point-of-use units can provide adequate removal of microorganisms and inorganic chemicals. Varying results have been reported regarding the use of activated carbon filters for the removal of organic chemicals. Reverse osmosis, ion-exchange, and distillation units can be used to reduce concentrations of total dissolved solids, chlorides, sulfates, nitrates, radium, and uranium as well as other anions and cations. Each treatment unit is generally designed for a specific application and probably will be relatively ineffective in removing other impurities. Currently, most treatment units by themselves cannot remove microorganisms, inorganic chemicals, and organics. Reverse osmosis treatment may be more expensive but often consists of a treatment "train" including a softener, a pre-filter to remove particulates, an activated carbon filter to remove chlorine and organics, the reverse osmosis unit itself, and possibly an anion exchange unit to further reduce nitrates.

The effectiveness of reverse osmosis systems in removing inorganic chemicals varies depending

**TABLE 4**  
Reduction of specific organics

| Organic compound      | Range of average percentage reduction |                |
|-----------------------|---------------------------------------|----------------|
|                       | Line bypass                           | Faucet-mounted |
| 1,1,1-Trichloroethane | 93-99                                 | 40-99          |
| Carbon tetrachloride  | 95-99                                 | 55-97          |
| Trichloroethylene     | 97-99                                 | 70-99          |
| Tetrachloroethylene   | 97-99                                 | 62-99          |
| p-Dichlorobenzene     | 95-99                                 | 60-99          |
| Hexachlorobenzene     | 45-99                                 | 20-99          |
| Chlordane             | 83-99                                 | 60-99          |

on the type of pretreatment, type of membrane, water-system pressure, water temperature, and overall quality of the water to be treated. Either cellulose triacetate or thin-film composite membranes are used for the reverse osmosis process. While the highest removal efficiencies are generally attained when using the thin-film composite membrane, the cellulose triacetate membrane may produce satisfactory results under certain conditions. Reductions of specific organics by line bypass and faucet-mounted activated carbon units are shown in Table 4.<sup>13</sup> The lower reductions for both types of units are for those that contain a smaller amount of activated carbon and provide a shorter time for contact between the water and the activated carbon. An example of removal efficiencies of various substances that might be expected from a home reverse osmosis system is shown in Table 5.<sup>14-17</sup>

Some of the more reliable water-conditioning firms will install treatment units on a trial basis and also may be able to do some limited water testing to determine whether the units are performing adequately. Users of such devices should be cautioned that routine maintenance and servicing may be necessary. Routine testing also may be required to determine whether the water quality is as high as the user expected. However, in the case of organic chemicals, it may be less expensive to replace activated carbon cartridges more frequently than recommended rather than to pay for routine testing to determine if the capacity of the cartridge has been exceeded. Also, in some instances, microorganisms

**TABLE 5**  
Efficiency of reverse osmosis treatment

| Substance              | Removal efficiency (%) |       |
|------------------------|------------------------|-------|
|                        | Average                | Range |
| Calcium                | 98                     | —     |
| Chloride               | 87                     | 54-99 |
| Fluoride               | 86                     | 57-98 |
| Nitrate                | 40                     | 29-99 |
| Sodium                 | 82                     | 52-92 |
| Sulfate                | 98                     | 79-99 |
| Total dissolved solids | 88                     | 45-93 |

may be present in greater numbers following point-of-use treatment, and flushing some water from the tap before use may be desirable.

## Conclusion

People who depend on private water systems for their drinking water should 1) assure themselves that their water source is as free of contaminants as possible, and 2) make every effort to keep it that way. If there is any doubt about the current or future quality of that water source, then a reverse osmosis treatment system may be a wise investment. When properly installed and maintained, these systems will provide adequate reduction of the levels of harmful substances in the water.

*Thomas E. Watts is a physician with the Blue Earth Medical Center, Ltd., Blue Earth, Minnesota.*

*Rexford D. Singer is an associate professor in the School of Public Health, University of Minnesota, Minneapolis, Minnesota.*

**Water Contaminants**  
references to page 47



ROBERT D. CHRISTENSEN, M.D.

# State Health Plan Concerns Patients, Physicians

**T**he recent controversy over the new State Health Plan points out the importance of the Minnesota Medical Association's role in preserving access to health care throughout Minnesota. When Aware Gold Limited was eliminated as a health insurance option for Minnesota's 53,000 state employees and replaced by the State Health Plan's preferred provider network, administered by Blue Cross and Blue Shield of Minnesota, physicians and state employees called the MMA to voice their concerns. State employees said they were forced to make a decision based on too little information, and many complained that their physicians were not included in the new network. Many physicians reported that they would like to be included in the network, but Blue Cross refused to offer them a contract or offered unacceptable terms.

The MMA responded by organizing a public forum to investigate these concerns. The forum brought into sharp focus some of the State Health Plan's shortcomings. A panel of representatives from the Minnesota Department of Employee Relations, Blue Cross and Blue Shield of Minnesota, and organized labor appeared before an audience of physicians, state employees, legislators, and clinic managers on December 13 at the College of St. Catherine in St. Paul. Panel members said the rapid rise in medical costs led the state to self-insure and to set up the preferred provider network. (Premiums for Aware Gold Limited had doubled in four years.) A preferred provider network seemed an effi-

cient way to reduce costs and still offer adequate health care to state employees, they said.

But the MMA has a responsibility to consider the long-range implications and overall impact of such decisions. As our patients' advocates, we are committed to a health care policy that preserves access for all Minnesotans and a reasonable choice of physicians within the delivery system.

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**"Disrupted care plans and other problems caused by the State Health Plan will have the greatest impact on access to care in rural Minnesota."**

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While 90 percent of Minnesota physicians participated in Aware Gold Limited, only 60 to 70 percent of physicians in greater Minnesota and 50 percent of physicians in the metropolitan area are included in the new State Health Plan. In some rural areas, the State Health Plan provider network is the only option available to state employees. To continue seeing a physician who is not in the network, a State Health Plan enrollee would have to pay a \$300 deductible and a 30 percent copay. For all practical purposes, this means an abrupt end to many long-standing physician-patient relationships. It was clear at the MMA forum how much confusion and disruption this has caused for both patients and physicians.

One young woman reported that her chemotherapy might be

interrupted because her oncologist is not in the network. Another state employee, who was at work snowplowing the roads that night, relayed his concern through a colleague that his wife's medical care had to be disrupted by changing physicians. The relationship between the physician and patient can be a vital part of the healing process—even though that relationship doesn't appear on a balance sheet. Knowing the patient's history and building a rapport are key elements of successful treatment.

Disrupted care plans and other problems created by the State Health Plan will have the greatest impact on access to care in rural Minnesota. Inadequate reimbursement for treating Medicare and Medicaid patients already has many rural physicians teetering on the edge of financial crisis. The loss of all state employees could push some rural practices over the brink. Clinics in greater Minnesota that have been left out of the network will have an even tougher time attracting and retaining physicians.

The MMA is urging state policy-makers to look beyond the immediate financial issues and consider the broader, long-term picture of health care in the state. If you have been adversely affected by the State Health Plan, please contact your legislators, Blue Cross and Blue Shield of Minnesota, Governor Perpich, and the state Department of Employee Relations, and encourage your patients to contact them as well. Policy-makers should be made aware of how their decisions will affect access to health

**President's Letter** to page 44



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# Medical Assistance Reimbursement

## An MMA Legislative Priority for 1990

*Prepared by the MMA Legislative Staff*

**A**s in years past, health care will be a major issue this month as the 76th Minnesota Legislature begins its second year. The MMA's top priority this year will be to address the inappropriate reimbursement levels found in Minnesota's Medical Assistance (MA) program.

The Senate and the House of Representatives reconvene on February 12, 1990, to complete their work for this biennial session. Although this year's session is intended to be "short"—lasting from six to 12 weeks—with the focus on emergency non-budget issues, the Legislature will also discuss supplemental spending issues.

The Minnesota Medical Association's Legislative Committee, chaired by Roger W. Becklund, M.D., Robbinsdale, has been actively reviewing issues, and MMA lobbyists and physicians have been analyzing proposals and meeting with legislators and key legislative staff to ensure that physicians' concerns are well represented. A question many physicians are beginning to ask themselves and to express to their legislators is, "How long can we continue to subsidize care for Medical Assistance patients?"

Minnesota physicians are currently reimbursed at the 50th percentile of 1982 charges for services provided to MA patients. Today's services are being reimbursed based on charges that are eight years old. For many physicians, MA reimbursements no longer cover the actual cost of providing the services.

A study released by the Minnesota Office of the Legislative Audi-

tor in February 1989 entitled "Access to Medical Services" looked at MA participation among physicians in 1987. That study showed physicians' overhead costs were 55 percent of charges, and Medical Assistance was paying 65 percent of charges.

Now, three years later, for many clinics those percentages have flipped. "For every dollar we charge a Medical Assistance patient, we pay 56 cents for overhead and receive only a 38-cent reimbursement," said A. Stuart Hanson, M.D., at a recent MMA meeting with Gov. Rudy Perpich concerning the MA crisis. Hanson practices at Park Nicollet Medical Center in Minneapolis.

Also adding to the problem is the tremendous expansion in MA eligibility since 1987. In its efforts to increase access for prenatal and well-baby care, the state has greatly expanded the eligibility standards for these recipients. Although the MMA has strongly supported these expansions, the broader coverage has added to the financial pressure on physicians trying to serve these patients as their MA caseloads become a larger percentage of their total practice.

What are the consequences if these inappropriately low reimbursements continue? The ultimate consequence is a severe access problem for MA patients in many areas, especially rural and inner city. A Department of Human Services official has identified a number of key areas in the state where there is reduced access for medical assistance recipients who need prenatal and obstetrical services. These areas include both Minneap-

olis and St. Paul, St. Cloud, and Anoka County. In the southwestern part of the state many clinics are reportedly considering not accepting any new MA patients.

Reduced access to care goes beyond private physician clinics. Public health clinics are beginning to feel the effects of inappropriate MA reimbursement as well. These nonprofit clinics are funded by

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**"In rural Minnesota, physicians are being forced to examine whether they can continue to practice when their MA reimbursements don't cover their costs."**

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state, county, and local money and are designed to serve low-income patients who are not receiving Medical Assistance. But because they are unable to get care elsewhere, MA patients are increasingly using the public health clinics. Although they are nonprofit, the public health clinics are finding it difficult to survive financially with such large MA caseloads. One public health clinic administrator in the Twin Cities commented that the influx of MA patients—as many as 25 percent from outside the metro area—is limiting that clinic's ability to care for other low-income patients who need free or subsidized care.

In rural Minnesota, physicians are being forced to examine whether they can continue to practice when their MA reimbursements don't cover their costs, their



Medicare reimbursements are among the lowest in the nation, and they are seeing growing numbers of patients who are covered by health plans that require them to discount their fees. Under these conditions, some physicians are faced with limiting the number of MA patients they see or possibly closing their doors altogether.

Darrell Carter, M.D., a family physician from Granite Falls, Minnesota, was recently quoted in the *Granite Falls Tribune* (June 1, 1989), "If something doesn't happen, none of us will be here. Our real concern is how do we maintain medical care in Granite Falls." This article appeared after the decision by the Granite Falls Medical Center to discontinue seeing any new Medical Assistance patients and was accompanied by an editorial entitled "Decision Not to Take on New Medical Assistance Patients Had to Be Made." The editor stated:

"We can take time to understand that the decision by the physicians here is not as selfish or heartless as it may seem. It is, in fact, done out of need, both ours and theirs, and not out of greed. And no one feels the pain the decision might mean as do the physicians. It goes against their nature to discontinue providing care to anyone. But it has come down to a question of providing some care here or none at all. We owe it to them to understand that."

Low Medical Assistance reimbursement adds to the difficulty of recruiting family practice and other primary care physicians to rural areas. Dennis Miley, an administrator of Waseca Area Memorial Hospital, noted during a November news conference that at least 200 physicians are needed now in rural Minnesota.

"Responsible levels of Medicare and Medicaid reimbursement can help bring financial stability to rural health care. This, in turn, will make the rural setting more attractive to young physicians," Miley said at the joint Minnesota Hospital Association/Minnesota Medical Association news conference.

An updating of MA reimbursements cannot be put off much

longer. According to officials at the Minnesota Department of Human Services, there exists a "looming crisis" in Minnesota's health care system because of the access problems developing within the MA program. Following the recent meeting with Gov. Perpich and members of the MMA, the Department of Human Services agreed to form a task force of physicians and clinic managers from throughout the state to address the MA reimbursement issue. The goal of this task force is to make recommendations to the governor for his 1991 biennial budget.

While the MMA is pleased that the governor and the Department of Human Services finally are recognizing the problem, 1991 may be too late for many physicians. Because the need is urgent,

the MMA supports an immediate increase in MA reimbursements to the 50th percentile of 1988 usual and customary charges. Appropriate reimbursements must be adopted as soon as possible, with a system of automatic yearly adjustments based on a medical economic index to reflect inflation.

Thanks to the persistence of many of our physicians during the last 10 months, the Legislature has gotten the message that patient access is beginning to suffer. Now physicians need some indication from legislators that they understand that a crisis exists. Our government seems to expect that physicians will always be there to provide care. Unless the state provides sufficient funding for essential health care programs, physicians may not always be there. ■

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## Management training from page 30

manage physicians. "You can't manage these highly professional, technical people in the sense that you manage people at Dayton's or General Motors," Kralewski said. "They're highly individualistic, so you can't tell them what to do. You can only set goals.

"I worry about whether management understands how you manage this field. We are short on talent on how to manage those folks." The programs that train managers need a lot of work, he said.

While the kinks may have to be ironed out of the management training programs, physicians who do take them are gaining new insights. Spilseth has found that his year in Madison helped broaden his perspective. In a summary of his experiences, he wrote to the Bush Foundation: "As physicians in practice, we are constantly focusing on individuals, but in contrast, this program taught me to think

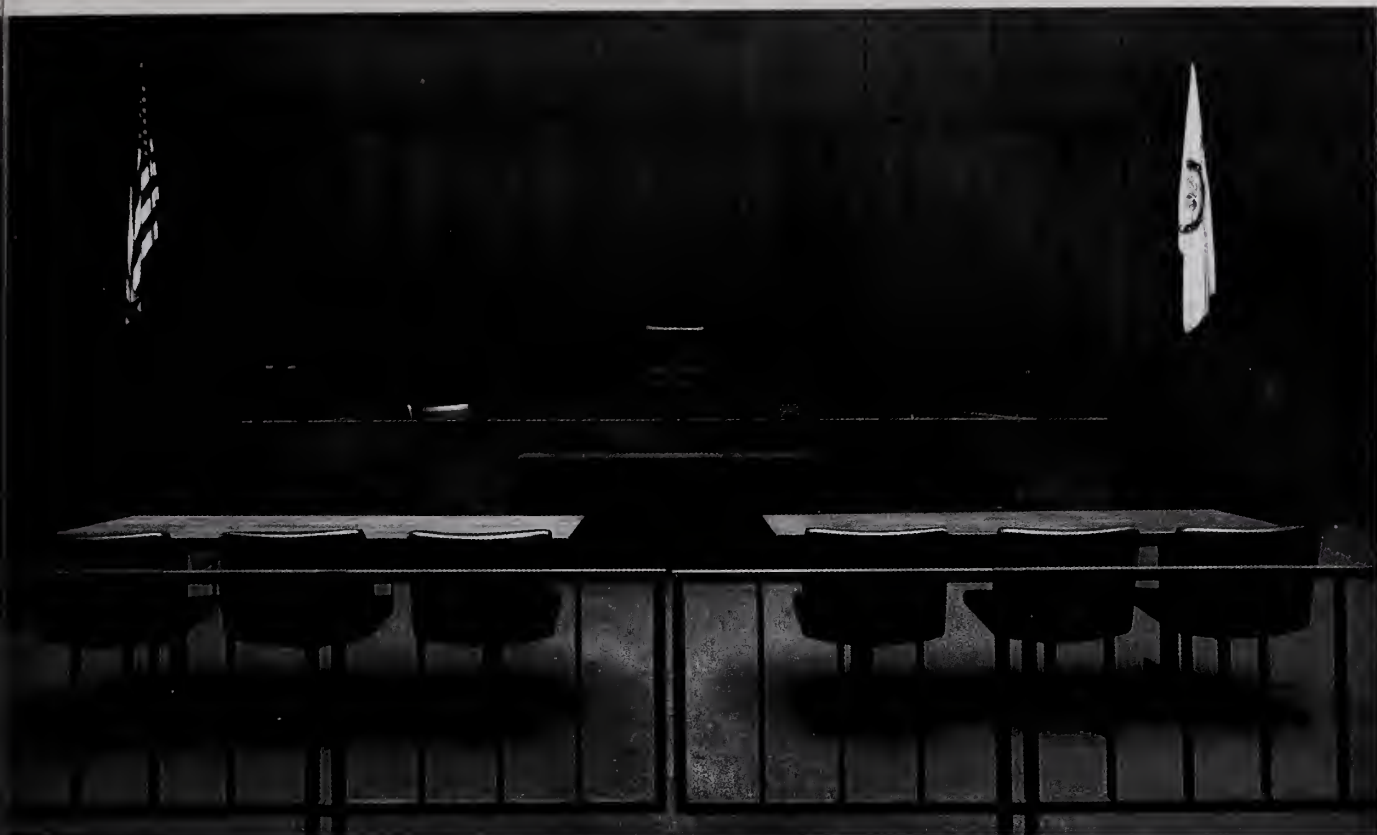
more about systems of health care for a population rather than health care of individuals."

As St. Thomas' Swenson puts it: "Physicians who have a strong understanding of the clinical imperative are going to be in a unique role to make decisions when they also understand the economic imperative."

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*The American College of Physician Executives acts as a clearinghouse for information on management training programs for physicians. Currently, there are just two programs designed specifically for physicians, one at the University of Wisconsin and one at Arizona State University. Numerous other programs offer business and management courses and are training physician managers.*

*For more information on these programs, call Gwen Zins at ACPE (813) 287-2000. Or write ACPE Information Services, 4890 West Kennedy Boulevard, Suite 200, Tampa, Florida 33609.*



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Thanks to an AMA brief, persons with infectious diseases, including AIDS, are protected under the federal law prohibiting discrimination against the handicapped. Thanks to an AMA

brief, the Supreme Court held that Health and Human Services regulations affecting physician services under Medicare can be challenged in federal court. And thanks to an AMA brief, the constitutionality of some medical liability tort reform legislation—one possible solution to the professional liability problem—has been upheld at the state level.

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**Ashton** from page 10

**REECE:** *In Minnesota, are most AIDS cases due to sexual behavior rather than drugs?*

**ASHTON:** Yes. About 83 percent of Minnesota's AIDS cases are due to homosexual activity. About 3 percent are due to drug problems. The remaining cases are due to a combination of causes.

**REECE:** *Is there anything about the Minnesota approach to containing the AIDS problem that distinguishes it from other states?*

**ASHTON:** From what I have learned from the Centers for Disease Control in Atlanta, I believe Minnesota has taken a leadership role in setting up a testing and counseling program and a partner-notification program that other states can duplicate. Early on we saw the value of getting involved with combined testing and counseling and with partner notification. Our Legislature promptly responded with an appropriation long before many other states did. Colorado and Minnesota were the first states to get involved in partner notification, which was very controversial and still is in many places.

**REECE:** *What about the treatment itself? In San Francisco, the hospice approach is most common. In New York City, it's in-hospital acute care. How do we approach treatment in this state?*

**ASHTON:** Our department is administering two study grants to determine the best way to provide care and case management services to individuals infected with HIV. At certain times such a person may need hospital care; sometimes that person can be taken care of by home health personnel; and at other times a hospice-type level of service may be appropriate. We want to be able to provide the services and care people need without spending more money than is necessary. The state is very worried about the increasing cost impact of AIDS, although that problem is under the Department of Human Services' jurisdiction.

Here, in the Department of Health, we worry about the availability and quality of the services. We depend on the Department of Human Services to pay for them.

## The HMO Evolution

**REECE:** *Another challenge you've faced during your tenure is the HMO controversy—how HMOs should be financed and what happens if one goes bankrupt. Legislation was passed two years ago mandating that HMOs maintain a minimum level of financial reserves. Has that controversy simmered down? Do you expect the HMOs to meet their financial reserves?*

**ASHTON:** The controversy has simmered down, but our concern about financial stability remains. Some level of financial stability should have been required long ago, but it took a crisis to instigate real action. The legislation attempted to equalize what was happening between annuity insurance plans and HMOs. The original legislation favored HMOs, simply to help them get off the ground in the hope that they would contain costs. As time went on, the variations of so-called HMOs (really managed care) were looking more like insurance plans. And, in many ways, insurance plans were resembling HMOs. It didn't seem right that HMOs should be favored as they were, and yet they were having serious financial problems despite these apparent advantages.

If you recall, the governor established a task force to look at health plan reform, and out of that came some of this legislation. We have plans from all the HMOs that will ensure over the next five years the level of financial stability required by law. We expect the HMOs to follow those plans, and we are monitoring them very carefully. Some of them are in more serious condition than others, and we are watching their progress more closely.

Some HMOs are dropping their coverage in rural areas because rural enrollees are simply not cost effective for them, in part because of lower Medicare reimbursement

in rural areas. I think HMOs will resolve their own financial problems, but they're going to have to keep their noses to the grindstone to do it.

**REECE:** *I understand that in January, Physicians Health Plan (PHP) dropped some 40,000 seniors from TEFRA Medicare plans. And there's legislation that says PHP has to provide them with wrap-around medi-gap plans. Does that pose any sort of political or financial problem?*

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**"I think HMOs will resolve their own financial problems, but they're going to have to keep their noses to the grindstone to do it."**

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**ASHTON:** The legislation requires that if an HMO is going to drop enrollees, it must provide an alternative for them. As long as the HMOs conform to that legislation, we know that the people they are discontinuing are going to have some kind of coverage. The issue came to a head when PHP and MedCenters both decided to drop a number of enrollees in St. Cloud and the surrounding area, leaving many people without any coverage. The people dropped generally were older, and they were very concerned about their loss of coverage.

## Minnesota's Uninsured

**REECE:** *Congress recently repealed catastrophic health insurance under Medicare. What are the ripple effects of that repeal in Minnesota?*

**ASHTON:** We're very concerned about the elderly population. Elderly people may wait to seek health care, or they may go without it altogether, because they don't know how they're going to pay for it. I'm hoping that Congress, having dropped catastrophic coverage, is going to feel obligated to consider more comprehensive coverage for the uninsured and

underinsured. The problems of the uninsured are extremely serious and are getting worse.

**REECE:** *How many Minnesotans are uninsured?*

**ASHTON:** We estimate about 450,000 Minnesotans are without health care coverage during some part of each year.\* That number changes because people move in and out of employment, but it's roughly one out of every 10 Minnesotans.

**REECE:** *There are, of course, two approaches to this. One is a national universal coverage, and two, a more piecemeal state approach, as in Massachusetts. Do you anticipate heavy legislative activity this year to enact a Minnesota plan?*

**ASHTON:** Not this year, but I think we will in 1991. Rep. Paul Ogren, DFL-Aitkin, made people aware of the problem last year when he introduced his Health-span bill. The cost of such a program appears to be the biggest hurdle in the Legislature. A major reason Rep. Ogren's plan did not go through last year is that there were not sufficient actuarial studies to demonstrate that the \$150 million included in the bill would cover the plan, even if the state had the \$150 million. Rather than implement any part of that plan, the Legislature established the Health Care Access Commission to look at how we could implement a plan to take care of the uninsured and the underinsured. That commission is meeting regularly through 1990 and will present a plan to the Legislature in 1991, which is a regular budget year. The commission has already begun gathering information.

**REECE:** *Do you have any comment on the national prospects for a universal health plan?*

**ASHTON:** It's going to be a big issue in the next presidential election. I never thought that I would

come to believe that we need some kind of national health insurance coverage, but since I've been in this job and I've seen people fall through the cracks, I don't know how we can handle the problem without some kind of federal legislation.

## The Big Picture

**REECE:** *What do you see in this job that you didn't see as a hospital administrator?*

**ASHTON:** It's a much broader and much more comprehensive view of health. It's looking at health care from a completely different perspective. When you work in a hospital, you work on programs, activities, and plans to take care of individuals' needs. It's a more one-to-one kind of relationship and concern. In public health, we're trying to prevent people from getting sick or contracting diseases. We're looking at what's putting people in the hospitals. Two-thirds of the people in Minnesota, for example, die of heart disease, cancer, or stroke, in large part due to smoking. We turn this fact around in public health and try to get people not to smoke.

This job has also shown me how little coordination there is between the acute-care system and public health. Limited resources have created more challenges than ever before, especially in rural areas, so this situation needs to change. Problems we see today, like HIV infection, require that physicians and other acute-care professionals work more closely with the people in public health.

## Rural Hospitals' Viability

**REECE:** *What about the problems facing health care facilities in rural Minnesota?*

**ASHTON:** That's another big challenge we face right now. In fact, in December, another hospital closed—St. Mary's in Winsted. That's three hospitals that have closed in 1989. Last March we published a Department of Health study (summarized in the January

1990 *Minnesota Medicine*) showing that 33 of Minnesota's 165 hospitals are at risk, all in rural Minnesota. Twelve of them are at high risk. They probably will close within two years if nothing is done. The Department of Health has been trying for the last two years to get a legislative appropriation that would make it possible for us to assess health care needs and access in rural Minnesota if some hospitals were to close.

We must find ways to keep needed hospitals viable in certain areas. Their viability affects not only access to care, but the availability of physicians and nursing personnel in those areas as well. We need to coordinate what's happening in those areas with emergency medical services and community health agencies.

**REECE:** *What about Sen. Durenberger's bill that offered grants to a number of rural hospitals in transition; has that helped some of our rural hospitals?*

**ASHTON:** Those grants have been awarded now, and Minnesota came out pretty well. Eighty-some federal grants were given nationwide, and Minnesota received eight grants. Many more small hospitals—maybe 24 or 25—applied for those grants. The grant money will help the hospitals plan their futures. That might mean a transition into something else or a joint venture with other hospitals or clinics. Many people in rural Minnesota have some very good, innovative ideas about finding ways to keep their hospitals going, but they don't have the leverage to pull it together. We have a lot of small hospitals in Minnesota that are very close to one another. No one of them has the clout to insist that the board of trustees at another hospital join with them even to talk about a cooperative venture. That's where we could help. We could call a meeting of people in these communities and show them some of the demographics and trends affecting their rural health care situation and suggest ideas about working together.

\*At any one time during the year there are approximately 342,000 Minnesotans without health insurance coverage.



**REECE:** *Do you think action at the federal level with narrowing of the current geographic variation for reimbursement would help?*

**ASHTON:** It sure would. Even the metropolitan areas in Minnesota receive lower Medicare reimbursement than they do on the coasts, and it's much worse in our rural areas.

## The Graying of America

**REECE:** *What are some other issues that loom large in your mind right now as we enter the 1990s?*

**ASHTON:** The aging of our population is the major concern for the decade ahead. Everybody is very much aware of the graying of America. We are concerned about it in Minnesota because we have a larger proportion of elderly than most states. Our population of frail elderly over age 85 will double in the next 20 years. We will see a significant increase in those over 65, with a corresponding decrease in the number of young people. About 9 percent of our population is in nursing homes, compared with 5 percent in the rest of the nation. A lot of people are working to develop alternative kinds of care for older people.

I am particularly concerned that we find ways to encourage people to stay active as they age and that we think of people as being healthy individuals until they're in their 70s—at least. Now we seem to believe that people are pretty healthy through age 60. After that, we assume they will develop chronic diseases that require a great deal of health care. If we can convince our young people to live healthy lifestyles, they're more apt to be healthy when they are 65, 70, 75 years old. I think that's the big challenge for the next several years.

There's a very large proportion of elderly in some parts of our state. People are moving from the metropolitan area and retiring around Brainerd, Bemidji, and other resort areas. Those areas are becoming retirement settlements, and they will be facing some real challenges.

## Hope for the Future

**REECE:** *How do you see the immediate future?*

**ASHTON:** We are fortunate in Minnesota, because we have not only very committed health professionals, including physicians, nurses, and public health workers, but we also have very committed lay people promoting good health. Plus, our citizens are receptive to messages that promote good health. They are not reluctant to

listen to the importance of eating a balanced diet, exercising, and not smoking. We live in a very health-conscious state, and that makes it possible for us to do things here that can't be done in other places.

**REECE:** *Several years ago, you launched a campaign with bumper stickers saying "Minnesota, the Great State of Health."*

**ASHTON:** That's right. Those bumper stickers are still good! ■

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## Editor's Notebook from page 9

remuneration would drop.

But this discontent is not so prevalent among physicians of 40 or under. These physicians have, for the most part, accepted the fact that the world is not going to be the way it once was. They have accepted the realities that they will be managed, will work within the context of organizations, and will have to play organizational politics to lead those organizations. That is why those joining the American College of Physician Executives are becoming increasingly younger, why young doctors are flocking

into M.B.A. and other management programs, and why young physicians accept marketing, advertising, and salaried positions as part of their way of life.

A new breed of physician leaders is arising. They are younger, more confident, and more highly trained in skills useful within small and large organizations. I wish these new leaders well. As they ascend to power, I trust they will not forget the fundamental importance of those on the front lines—the practicing physicians and their patients. ■

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## President's Letter from page 37

care, as the MMA continues to monitor the situation and to explore possible solutions.

Although we have to recognize that soaring medical expenses are making cost-cutting measures inevitable, there must be a better solution than the State Health Plan provider network—at least in its current form. Even from a financial standpoint the concept seems unsound; shifting large numbers of patients from one clinic to another will generate extra costs by making additional examinations necessary. It is crucial that we take the lead in

determining how costs will be contained without compromising health care quality or access. Many insurance companies already discourage overutilization by requiring a modest copay. As physicians, we can discourage overutilization by explaining to our patients when they need to see a physician and when they don't, by educating them about the proper use of the emergency room, and by setting guidelines that will maintain our professional role in determining quality of care while reducing unnecessary costs. ■

## MEDICARE PATIENT MORTALITY

Minnesota hospitals again fared well in the third annual report on hospital mortality released in December by the Health Care Financing Administration (HCFA). The report determines whether hospital mortality rates among Medicare patients fall within an expected range.

No large Minnesota hospital had a higher-than-expected rate, and, although four hospitals' mortality rates fell above the expected range, in all cases they exceeded the expected rate by less than 1 percentage point. Four hospitals had lower-than-expected mortality rates. They were: Heron Lake Municipal Hospital, Perham Memorial Hospital, A.L. Vadheim Memorial Hospital in Tyler, and Rochester Methodist Hospital. Rochester Methodist fell below the expected range for the third straight year, a feat accomplished by only three other hospitals in the nation.

HCFA researchers inputted Medicare patients' ages, their primary and secondary illnesses, and other factors into a computer, which produces an expected range for that hospital's death rate. In its report, however, HCFA qualifies the data: "The report is not a guide for

consumers to compare the mortality rates of one hospital vs. another. Differences in mortality rates may be explained by numerous factors, including differences in levels of severity of patients treated."

## HEART-WRENCHING DELAYS

Early delays in treating heart attack victims with therapeutic drugs, both before and during hospitalization, are hurting their chances for survival, according to a report in the December 8 *Journal of the American Medical Association*.

Two major factors contribute to the delays: a patient's reluctance to seek medical help and the time lags between treatment in a hospital's emergency and coronary care departments, concluded Scott Sharkey, M.D., of the Division of Cardiology, Hennepin County Medical Center (HCMC), Minneapolis, and colleagues. They tracked the progress of 236 patients in four Twin Cities hospitals (HCMC, Abbott Northwestern, St. Paul-Ramsey, and Fairview Southdale) between 1986 and 1988.

The authors determined it takes less time for a patient to get to the hospital once a heart attack is suspected (65 minutes)

than it does for the hospital staff to begin drug therapy (81 minutes).

## DANGEROUS ZAMBONI FUMES

Minnesota Department of Health researchers alerted the nation in December to the dangers of Zamboni fumes. Hockey players and fans alike, the researchers warn, could be at risk of developing respiratory illness from nitrogen dioxide fumes emitted by malfunctioning Zamboni ice-resurfacing machines.

In the December 1 *Journal of the American Medical Association*, Katrina Hedberg, M.D., at the Centers for Disease Control in Atlanta, and colleagues at the Minnesota Department of Health reported on a 1987 outbreak of respiratory symptoms. At least 135 hockey players, cheerleaders, band members, and other spectators at two high school games at the Jay Cook Arena in Coon Rapids developed severe respiratory illness—marked by severe coughing, blood-tinged sputum, and tightness in the chest—as a result of nitrogen dioxide buildup inside the arena.

The researchers recommend that physicians be aware of this health problem, that Zambonis be properly maintained and

ice arenas properly ventilated, and that other states follow Minnesota's and two other states' example by regularly monitoring ice rink air quality.

## LEUKODYSTROPHY CURE

Bone marrow transplants could be used to cure the genetic disorder metachromatic leukodystrophy if done early in the course of the disease, University of Minnesota pediatrician William Krivit, M.D., said in January. Metachromatic leukodystrophy impairs the central nervous system and leads to death. Krivit and colleagues reported in the January 4 *New England Journal of Medicine* that they had successfully used bone marrow transplantation to treat a five-year-old girl with metachromatic leukodystrophy. The girl is now 10 and has not shown the mental decline associated with the illness.

## AUTOLOGOUS TRANSPLANT

A Minneapolis leukemia patient in December became the first person to receive an autologous bone marrow transplant at a Twin Cities private hospital. The 29-year-old woman received a transfusion of her own bone marrow—which had been harvested last June when



her cancer was in remission—at Abbott Northwestern Hospital in Minneapolis.

The autologous method makes bone marrow transplants possible for people who don't have donors, and it eliminates the rejection risks of donated bone marrow transplants.

## LASER LIPOSUCTION

A new technique developed by plastic surgeon Thomas Dressel, M.D., that combines lasers with liposuction was used for the first time January 2 at Abbott Northwestern Hospital in Minneapolis. Dressel removed two pounds of fat from the abdomen of a 30-year-old man by first cutting the fat tissue with a laser before suctioning it. The laser treatment is designed to reduce blood loss—which it did in its premier, Dressel said. He added that he plans to use the procedure on nine more patients, and to conduct a detailed study of those results to confirm the value of the new procedure.

## THE SMOKE OF A DISTANT INCINERATOR

Abbott Northwestern Hospital in Minneapolis burned its last load of medical waste in its on-site incinerator on December 28.

Abbott Northwestern's incinerator is licensed by the Minnesota Pollution Control Agency, and although its permit continues until March 1991, the hospital will instead haul medical wastes to an off-site incinerator. Officials estimate off-site incineration will increase medical waste handling costs by nearly \$60,000 per year.

Hospital officials cited an anticipated increase in costs to comply with new state regulations and

neighborhood concerns as reasons for shutting down the on-site incinerator.

## GROUP HEALTH AWARDS

Group Health, Inc., of Minneapolis, in December announced these awards:

Mark Warnken, M.D., a pediatrician at Group Health's St. Paul Medical Center, received the 1989 Group Health, Inc. Community Service Award for his years of service to profoundly retarded and multiply physically handicapped individuals.

Lloyd Fish, M.D., head of allergy and dermatology at Group Health's Como Medical Center, received the 1989 Dr. Maurice Visscher Award for professional excellence. Fish was recognized for his efforts to promote continuing medical education, research, and quality assurance at Group Health.

## HEALTHEAST'S LOSSES, FUTURE

After following recommendations in a consultants' report released last April, HealthEast ended fiscal year 1989 with a \$21 million loss—close to projections. After its third consecutive year of heavy losses, the five-hospital system is showing signs of keeping close pace with the budget-balancing moves proposed by Arthur Andersen & Co. and the Hunter Group (the consultants had predicted a \$20.4 million loss if all their recommendations were carried out). In the months after HealthEast's fiscal year ended August 31, 1989, unaudited reports showed losses down to \$760,000 for Sep-

tember and \$355,000 for October. The consultants predicted in April that HealthEast would show a \$6.8 million profit in the current fiscal year if all its recommendations were followed.

## RIVERSIDE CEO

Riverside Medical Center in December named John Doherty as its chief executive officer. Doherty, a 32-year-old certified public accountant, was vice president-finance for Riverside since July 1987. He is Riverside's fourth chief executive since the medical center was formed by the merger of St. Mary's and Fairview Riverside hospitals less than three years ago.

## UNIVERSAL HEALTH COVERAGE PLAN

Sen. Jay Rockefeller, D-W. Va., chairman of the Reagan-appointed United States Bipartisan Commission on Comprehensive Health Care, in December issued a plan for universal health coverage. The plan would require employers either to provide their employees with insurance covering hospital services, physician services, and preventive care, or to pay a higher tax that would help pay for such universal health insurance. Under the plan, the severely disabled would be assisted with home care and short stays in nursing homes by a social insurance program.

Specific details of the plan need to be worked out before the 15-member commission presents its findings to Congress in March, but commission members have been supportive of the measure.

## MEDICARE, MEDICAID, MEDICABUSE

The inspector general's office imposed 82 percent more sanctions for fraud or abuse in the Medicare and Medicaid programs in fiscal 1989 than in 1988, according to a report issued in December. New laws giving the Department of Health and Human Service's inspector general broader authority to fine health care providers and bar them from programs accounted for the rise from 466 sanctions to 846, according to the report by the inspector general. The office also tallied 1,278 prosecutions in the fiscal year ending September 30, 1989, up from 1,225 the previous year, and it collected nearly \$5.7 billion in settlements, fines, and savings in the fiscal year, according to the report.

## TRADITIONAL VS. OPEN-ENDED HMOs

Enrollment in open-ended HMOs grew significantly (14 percent) to more than 700,000 as of July 1, 1989, with 86,083 members added since January 1, 1989, according to InterStudy, the Excelsior, Minnesota-based research firm. The "open-ended HMO" allows HMO members to receive care from providers outside the HMO network for an additional contribution from the enrollee, usually in the form of deductibles and copays.

Traditional HMO enrollment reached 32,492,784 as of July 1, 1989, with 552,290 members added in the first half of 1989. In contrast to the growth of the open-ended HMO, this represents an increase of only 1.7 percent for the

six-month period January 1, 1989, to July 1, 1989—and less than half the 3.5 percent growth rate for the same period last year.

The number of HMOs declined from 607 to 590 between January 21, 1989, and July 1, 1989, according to InterStudy. The drop is the result of 12 terminations, as well as a number of mergers and consolidations.

## A DEPRESSING OVERSIGHT

Primary care physicians fail to spot severe clinical depression in about half their patients, and HMO doctors fare worse than fee-for-service physicians, according to a study in the December 15 *Journal of the American Medical Association*. The authors, psychiatrist Kenneth Wells, M.D., of the University of California, Los Angeles, and colleagues, studied 650 severely depressed patients and 500 physicians in Los Angeles, Chicago, and Boston. They found that physicians paid on a fee-for-service basis detected only 54 percent of depressed patients, while prepaid physicians detected only 42 percent of such patients.

## AZT-RELATED TUMORS IN LAB ANIMALS

Very high doses of AZT in aging laboratory rodents have caused vaginal tumors, federal health officials reported in December. Dr. James Mason, the top health official of the Department of Health and Human Services, recommended that patients continue to use the drug under consultation with their physicians. Mason said, "Although these results appear to be significant, they do not establish

that the drug has a carcinogenic effect in humans."

More than 40,000 Americans with AIDS take AZT.

## PREEMIE SURVIVAL

The survival rate of very premature babies has remained static over the past seven years—despite expensive efforts to improve their survival, according to a recent report. Maureen Hack and Avroy Fanaroff of the Case Western Reserve University School of Medicine in Cleveland, studied 98 premature infants weighing 750 grams (26.4 ounces) or less and born between mid-1982 and mid-1985, and 129 such babies born between 1985 and 1988. The infants in the first group had been born on average at 24.2 weeks, and the average for the second group was 23.5 weeks.

Survival rate for the infants in the early period was 20 percent; for the latter group it was 18 percent. Although survival did not improve, the average time until death among infants in neonatal intensive care units rose from 73 hours to 880 hours, the percentage of infants resuscitated rose from 38 percent to 47 percent, and the cesarean section rate increased from 12 percent to 19 percent.

These results, published in the December 14 *New England Journal of Medicine*, add new data to the controversy over fetal viability.

## Water Contaminants from page 36

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## FEBRUARY 1990

**2-3** **Current Concepts of Cardiology** Abbott Northwestern Hospital; Sawmill Inn, Grand Rapids, Minnesota. CONTACT: Tim Schuh, CME Office, 14202, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

**3** **Update in Ophthalmology** St. Paul Eye Clinic; Minnesota World Trade Conference Center, St. Paul, Minnesota. CONTACT: Judy Resheski, 240 Lowry Medical Building, 350 St. Peter Street, St. Paul, Minnesota 55102; (612) 221-9849, Ext. 53.

**3-4** **Issues in Pediatrics** Children's Hospital Merit Care; Arrowwood Resort, Alexandria, Minnesota. CONTACT: Sue Heinze, Children's Hospital Merit Care, 720 4th Street North, Fargo, North Dakota 58122; (701) 234-5737.

**4-15** **Amazon River and Grenadine Islands** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, Minnesota 55116.

**12-16** **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

**12-16** **Neurology in Clinical Practice** Mayo Clinic/Mayo Foundation; Kauai Hilton, Lihue, Hawaii. CONTACT: Rita Kunz, 200 First Street SW, Mayo Clinic, Rochester, Minnesota 55905; (507) 284-2509.

**Feb 14-Mar 2** **South Pacific** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, Minnesota 55116.

**15-17** **Myelodysplasia Syndromes (Preleukemias)** Mayo Medical Laboratories; Mayo Clinic-Scottsdale, Scottsdale, Arizona. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, Minnesota 55905; (800) 562-1787.

**24** **Medical Malpractice Stress** Minnesota Medical Association; Minneapolis Metrodome Hilton, Minneapolis, Minnesota. CONTACT: Christine Talcott, 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875.

**Feb 28-Mar 4** **Thoracic Organ Transplantation** Minneapolis Heart Institute Foundation; Westin La Paloma, Tucson, Arizona. CONTACT: Tim Schuh, Minneapolis Heart Institute Foundation, 920 East 28th Street, Suite 60, Minneapolis, Minnesota 55407; (612) 863-3979.

## MARCH 1990

**5-9** **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

**7-9** **Annual Critical Care Medicine Conference** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

**12-14** **Partners in Managing Type II Diabetes** International Diabetes Center; International Diabetes Center, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

**15-16** **Family Practice Today** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

**19-23** **Problem-oriented Case Studies in Surgical Pathology** Mayo Medical Laboratories; Palm Springs, California. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, Minnesota 55905; (800) 562-1787.

**23** **11th Annual Occupational Medicine Update** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

**26-30** **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

## APRIL 1990

**5-6** **Annual Obstetrics and Gynecology Update** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

**6** **ENT Update** St. Paul-Ramsey Medical Center; St. Joseph's Hospital, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

**6-7** **13th Annual Update in Clinical Cardiology** Abbott Northwestern Hospital; Radisson Plaza, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, 14202, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

**8-14** **Laboratory Diagnosis of Fungal Infections** Mayo Medical Laboratories; The Empress Hotel, Victoria, British Columbia. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, Minnesota 55905; (800) 562-1787.

**13-27** **The Danube River** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, Minnesota 55116.

**20-21** **Cutaneous Laser Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Cathy Elmstrom, 14202, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

**26** **Lasers in General Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Cathy Elmstrom, 14202, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

**27-28** **Laser Laparoscopic Cholecystectomy** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Cathy Elmstrom, 14202, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

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**Advanced Critical Life Support (ACLS)** – 8:00 a.m.-4:30 p.m., Health One Buffalo Hospital, Buffalo, Minnesota

## February 5

**"Electrophysiology"** by David Dunbar, M.D. – 6:30 p.m. Health One Owatonna Hospital, Owatonna, Minnesota

## February 7

**Medical Staff Officer Leadership Seminar** – 8:00 a.m.-5:00 p.m., Sheraton Midway, Minneapolis, Minnesota

## February 8

**Advanced Critical Life Support (ACLS)** – 8:00 a.m.-4:30 p.m., Health One Buffalo Hospital, Buffalo, Minnesota

## February 12

**"Electrocardiography"** by David Fine, M.D. – 5:30 p.m. Health One Buffalo Hospital, Buffalo, Minnesota

## February 21

**CPR For Physicians**, 6:00 p.m., Metropolitan-Mount Sinai Medical Center/Phillips Campus

## March 9-10

**2nd Annual North Region Conference**, Sponsored by Unity Medical Center, Mercy Medical Center, Health One Buffalo Hospital, Riverwood Conference Center, Monticello, Minnesota

## April 25

**Rheumatology Seminar for Specialists** – Sponsored by the Arthritis Care Program, 3:00 p.m., Orthopaedic Learning Center, Metropolitan-Mount Sinai Medical Center Downtown

For further information, contact the Continuing Medical Education office, Health One. (612) 574-7895 or toll-free 1-800-343-DOCS.

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**Twenty-nine Physician Multispecialty Clinic** located in desirable east-central Wisconsin location is seeking board-certified or board-qualified orthopedic surgeon to round out its services. Lab, X-ray, excellent hospital. Liberal guarantee and benefits. If interested, contact: D.F. Sweet, M.D., Fond du Lac Clinic, S.C., 80 Sheboygan Street, Fond du Lac, Wisconsin 54935. (R)

**Family Physician/Emergency Room:** Full-time salary working weekends, primarily emergency room. Flexibility available. Falls Medical Center, PA, 105 Shorewood Drive, International Falls, Minnesota 56649. Please contact: A. Johnson, M.D., or A. Marc Gorden, M.D., at (218) 283-9431 for more information. (R)

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**Family Physician** wanted to join four physicians, one nurse practitioner, FP group practicing in two offices in Pine River and Pequot Lakes. Competitive salary. No OB. No HMOs. Rural area with outdoor recreational opportunities. Rotate hospital visits, emergency call; adequate free time. Call or write: C.R. Pelzl, M.D., Pine and Lakes Clinics, PO Box 88, Pine River, Minnesota 56474; (218) 587-4416. (R)

**Physician: GP/FP/EM** seeks locations to cover on weekends a locum tenens. Board-certified. FP. Lic. Minn. Write: Box 35132, Minneapolis, Minnesota 55436. (R)

**Wausau Medical Center** is seeking BE/BC individuals in the following specialties: cardiology, dermatology, family practice, infectious disease, obstetrics/gynecology, pediatrics, and rheumatology. Modern

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**Family Physician:** Dynamic 13-physician, 3-office, single-specialty practice in northwest Minneapolis suburbs seeking additional associate, BE/BC; OB available. Competitive salary, full benefits, reasonable call and hospital rounds schedule. Contact: Dr. Ken Kephart, Northwest Family Physicians; (612) 476-6776. (\*R)

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**Mankato Clinic, Ltd.** is seeking BE/BC physicians in the following specialties: allergy, dermatology, invasive cardiology, oncology, urology, ophthalmology, and general internal medicine. The Mankato Clinic is a 38-doctor multispecialty group practice in south-central Minnesota with a trade area population of 150,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information, call Roger Greenwald, Administrator, or Dr. B.C. McGregor, (507) 625-1811 or write 501 Holly Lane, Mankato, Minnesota 56001. (R)

**Family Physician** needed to join group of five family physicians in St. Peter, Minnesota, population 9,000, located one hour south of Minneapolis. Contact: Curt Stolee, M.D., or D.A. Nygard, Administrator, St. Peter Clinic, Ltd., 622 Sunrise Drive, St. Peter, Minnesota 56082; (507) 931-2110. (R)

**Bemidji, Minnesota:** Excellent opportunities for well-trained physicians. We are seeking board-certified/board-eligible physicians in orthopedic surgery, family practice, ophthalmology, pediatrics, and otolaryngology to join a young 24-physician multispecialty group practice located in northern Minnesota. Competitive salary guarantee plus incentive first year and excellent benefits. An excellent opportunity for a physician to enjoy practice in the center of hunting, fishing, and clear air. Please respond with CV to: C.C. Lowery, Administrator, Bemidji Clinic-MeritCare, 1233 34th Street NW, Bemidji, Minnesota 56601; (218) 751-1280. (R)

**Family Physician** to join medical staff of two family practitioners in well-established rural clinic in central Minnesota, along the southern shores of beautiful Mille Lacs Lake. Excellent subspecialty support, progressive community hospital, diverse patient population. Call collect, (612) 676-3661, or write c/o Nancy Swenson, Clinic Manager, Mille Lacs Family Health Center, PO Box 53, Isle, Minnesota 56342. (R)



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**Outstanding Opportunity for a BE/BC Family Physician** to join a progressive medical community with eight physicians oriented to family practice. Details will be given by contacting: Dr. Tim Schmitt, Wadena Medical Center; (218) 631-1360; or Jim Lawson, Administrator, Tri-County Hospital, Wadena, Minnesota 56482; (218) 631-3510. (R)

**Psychiatrist:** An opening exists for a general psychiatrist with Hennepin Faculty Associates. Salary and benefits are generous. Requirements are board eligibility, Minnesota licensure, and potential for appointment in the Department of Psychiatry at the University of Minnesota. Position involves mainly inpatient and some outpatient care of acutely ill patients. This would be in association with over a dozen other full-time psychiatrists engaged in clinical care, teaching, research, and forensics. The University of Minnesota and Hennepin County Medical Center are equal opportunity educators and employers and specifically invite and encourage applications from women and minorities. Contact: William W. Jepson, M.D., Chief of Psychiatry, Hennepin County Medical Center, 701 Park Avenue South, Minneapolis, Minnesota 55415; (612) 347-5764. (R)

**International Medicine and Family Practitioner BE/BC** to join a progressive 12-physician group practice in July 1990. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: R.M. Hammer, M.D., River Falls, Wisconsin 54022; (715) 425-6701 or (612) 436-8809. (\*R)

**St. Cloud—** Minnesota's fastest growing city—family practice physician, two pediatricians, two ob/gyns, BE/BC to join supportive primary care staff in a growing, successful, and innovative prepaid practice. New clinic facility. Full range of fringe benefits (competitive salary, liberal vacation, two weeks' education leave, retirement fund, etc.). Contact: Physician Services, Central Minnesota Group Health Plan, 1245 15th Street North, St. Cloud, Minnesota 56303; (612) 253-5220. An equal opportunity employer. (R)

**Waseca, Minnesota:** Family practice physician to join four family practitioners. Population 8,000. One hour south of Burnsville Center; lakes; industry. Salary negotiable. Clinic-adjacent hospital. Ample free time to enjoy family life. Contact: James W. Dey, M.D., or Ruth Hawker, 501 North State Street, Waseca, Minnesota 56093; (507) 835-3110. (R)

**Immediate Opportunity for Internist or Family Practitioner** in north-suburban area. Three primary care physicians in well-established practice. Competitive base salary plus incentive pay. Location next to Brookdale Shopping Center. Excellent benefits, which include pension, profit sharing, and malpractice insurance. Contact: Duane Orn, M.D., Northport Medical Center, 5415 Brooklyn Boulevard, Brooklyn Center, Minnesota 55429; (612) 533-8666. (9/89-R)

**Olmsted Medical Group** is currently seeking board certified/board eligible physicians in the following specialties: OB/GYN, EMERGENCY MEDICINE, INTERNAL MEDICINE, RADIOLOGY, GENERAL SURGERY, AND NEUROLOGY. This is an excellent opportunity for well-trained physicians to join a 50-physician multispecialty group in an established, progressive practice. In addition to the recently expanded main office located in Rochester, Minnesota, the Olmsted Medical Group operates eight branch offices in southeastern Minnesota. The affiliate hospital recently underwent a complete renovation and expansion project. Olmsted Medical Group offers a competitive salary and comprehensive benefit package including malpractice insurance, flexible benefits plan, 401K, and profit sharing. Send CV to: Olmsted Medical Group, Attn: Susan Schuett, 210 Ninth Street SE, Rochester, Minnesota 55904. 3-3/90

**Georgia:** Family practice, internal medicine, oncology, endocrinology, neurosurgery, neurology, general surgery, and orthopedic surgery. Group practice, solo, or urgent care settings available through the Charter hospital network located in Macon and serving all of middle Georgia. Your practice will be located 80 miles south of Atlanta, in a growing family-oriented community, where you can avoid traffic and enjoy a rewarding professional career. Please contact: Steve Wofford, (912) 741-6283, for a confidential consulta-

tion, or write: Charter Northside Hospital, PO Box 4627, Macon, Georgia 31208. 6-3/90

**Locum Tenens** physicians needed. Physicians and locations coordinating services. Write to: Margaret Carse, MED Professional Resource Search, PO Box 35215, Minneapolis, Minnesota 55435. (10/89-R)

**Wholesale Life Insurance**— No front load and no surrender charge. Example: 45-year-old male, \$500,000. First-year premium—\$4,000. First-year guaranteed cash value—\$3,526. Offered by Ameritas Life Insurance Corp., a hundred-year-old Best's rated A+ (superior) company. For further information contact: Greybull Insurance Services, 1313 5th Street SE, Minneapolis, Minnesota 55414; (612) 379-3860. (\*10/89-R)

**Family Physician:** Tired of call? Want predictable hours? Full-time physician needed to work three days per week in our outpatient family practice clinics. Two positions open for July 1990. Salary plus bonus and benefits including malpractice insurance. Contact: Todd Patton, M.D., or William Wenmark, CEO, c/o NOW Care Medical Centers, 13031 Ridgedale Drive, Minneapolis, Minnesota 55343; (612) 593-9010. 4-2/90

**Radiologist:** A three-physician radiology group is seeking a fourth radiologist with experience and interest in interventional radiology. Dickinson County Hospitals is a progressive, 126-bed, two-hospital system located in Iron Mountain on Michigan's Upper Peninsula. We have a service-area population of over 45,000. Contact and/or send resume to: Drs. Specht/Shampo/Manzano, Radiology Department, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, Michigan 49801; (906) 779-4565. 2-3/90

**Family Practice:** Physicians seeking a BE/BC family practice physician for the Norway, Michigan, service area. The physician would have the option of joining one of the existing practices and/or set up his/her own practice. Anderson Memorial Hospital is a part of Dickinson County Hospitals and has a service-area population of over 45,000. Contact: Dr. Paul Hayes, Anderson Memorial Hospital, Main Street, Norway, Michigan 49870; (906) 563-9243, or office (906) 563-9255. 2-3/90

**Family Practice—Suburban Minneapolis:** Multispecialty group with 25 family practice physicians has an excellent opportunity available. Call is one in 25 weekdays and one in four weekends (one day), full day off during week, excellent compensation, and unparalleled benefits program. Write: Columbia Park Medical Group, #480, 6200 Shingle Creek Parkway, Brooklyn Center, Minnesota 55430; or call: Robert Hovda, M.D.; (612) 788-9601. 3-2/90

**Family Practice:** Southwest Iowa community of 7,800 (servicing 27,000) seeking a family physician to join well-established six-doctor practice. Modern facility adjacent to 100-bed hospital. Income guaranteed first year, and full partnership after first year. For additional information, write to: Atlantic Medical Center, Sue Marsh, Office Manager, PO Box 429, Atlantic, Iowa 50022; or phone (712) 243-2850. 3-2/90

**Minneapolis:** BC/BE family practitioner or other specialty with emergency-room experience sought for the urgent care department of a large multispecialty group in desirable Twin Cities location. Our medical clinic is a highly reputable, well-established clinic that has been in existence for more than 38 years. Salary and benefits are highly competitive. Regular work week expectation without night call or hospital obligation. Send CV and letter of inquiry to: Patrick Moylan, Park Nicollet Medical Center, Minneapolis, Minnesota 55416. \*3-2/90

**Family Physician or Internist:** Busy family practice/industrial practice located on the beautiful North Shore of Lake Superior. Outdoor activities abound: hiking, skiing—xc and downhill—fishing, etc. Two-physician practice is looking for a third physician for a rewarding practice. VA nursing home is a near future reality. Contact: Jon



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Ward, Manager, Silver Bay Clinic, Ltd., Silver Bay, Minnesota 55614; (218) 226-4431. (12/89-R)

**Orthopedic Surgeon:** A progressive, 126-bed, two-hospital system is seeking an orthopedic surgeon to join an established practice in the Iron Mountain area of Michigan's Upper Peninsula. Must be BE/BC. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Dr. Roberts will guarantee \$200,000 plus malpractice insurance, office space, CME, vacation, and relocation expenses. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, Michigan 49801; (906) 779-4500. \*2-2/90

**Dermatologist, Psychiatrist, Allergist, Internal Medicine, Family Practice:** A progressive, 126-bed, two-hospital system is seeking the above specialists to establish practices in the Iron Mountain area of Michigan's Upper Peninsula. Must be BE/BC. Located 100 miles north of Green Bay, Wisconsin, Dickinson County Hospitals has a total service area population of over 45,000. Diagnostic capabilities include a CT scanner, CO<sub>2</sub> laser, and a fully staffed special diagnostic department. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, Michigan 49801; (906) 779-4500. \*2-2/90

**Women's Health—Family Practice/Internal Medicine:** Nearly a perfect practice working with a preventive health care team in a brand new facility. This is an established women's program that offers an affiliation with Iowa's oldest multispecialty group. Excellent guarantee, safe and well-educated community. Call or send CV to: Maxine Brinkman, 23 North Federal, Mason City, Iowa 50401; (515) 424-1100. 2-2/90

**Physician Opportunities:** Family practice, internal medicine, general surgery, nephrology, oncology, and ob/gyn opportunities available in the Midwest and nationwide. All guarantee excellent incomes and

can be reviewed in full confidence. Call or send CV to: Mary Agnello, Caswell/Winters Inc., 11400 West Lake Park Drive, Milwaukee, Wisconsin 53224 or 1-800-332-0488. In Wisconsin, (414) 359-1111. 2-2/90

**Eugene, Oregon—Internist, BC/BE** to join well-established 35-physician primary care group. Excellent schools. Abundant cultural and recreational opportunities. Near Cascade Mountains and coast. Home of University of Oregon. Please send CV to: Phil Taggart, M.D., Oregon Medical Group, 495 Oakway Road, Eugene, Oregon 97401; or call (503) 683-5808. 3-3/90

**Physicians Wanted:** If you enjoy the outdoors, from big lake sailing, canoeing, and skiing to dogsledding, you'll enjoy northern Minnesota and the North Shore of Lake Superior. Three-physician group desires energetic board-certified family physician to bring comprehensive health care to northeastern Minnesota. Share call, hospital, and nursing home responsibilities. Excellent benefits. Flexible hours. Openings available 1990. Locum tenens and full-time positions available. Contact: Bruce Dahlman, M.D., or Rita Plourde, Director, Cook County Community Clinic, Grand Marais, Minnesota 55604; (218) 387-2330. 3-3/90

**Wisconsin—Family Practitioner Needed** by progressive and growing group practice in west-central Wisconsin city of 55,000. Ninety miles from Minneapolis/St. Paul. Primarily prepaid practice with large component FFS. Highly competitive salary with excellent fringe. Practice high-quality care in a good recreational area. Send CV to: Stuart Lancer, M.D., 1030 Regis Court, Eau Claire, Wisconsin 54701; (715) 836-8552. 3-3/90

**General Medicine:** Position available with Cancer Detection Center at University of Minnesota. Clinic focus is on health risk screening and assessment. Hourly wage. Part-time flexible hours. No week-ends. No call. Current Minnesota license required. For more information, call/write: Dr. Donald E. Stewart, Director, Box 99, University of Minnesota Hospital, Minneapolis, Minnesota 55455; (612) 625-6970. 3-3/90

**BC/BE Family Physician, Internist** needed to join multispecialty group with emphasis on primary care. Scenic location with excellent school system, supportive medical community with strong local hospital, competitive salary, and benefits. Send CV to: Jane Wilkens, M.D., St. Croix Valley Clinic, 921 South Greeley Street, Stillwater, Minnesota 55082; (612) 439-2215. 3-3/90

**Des Moines, Iowa:** Multispecialty P.C. has immediate need for BC/BE physicians in the following specialties: family/general practice, oncology, dermatology, internal medicine, and ob/gyn. Initial financial package with start-up assistance, coverage, and free lease space is available. Located in metro area of 400,000; great schools, diverse cultural activities, college/professional sports. Interested physicians reply to: Minnesota Medicine (838), 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414. \*3-3/90

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**Ophthalmologist** to start part time and work into full-time practice. Downtown Minneapolis. Call: (612) 332-7745. (1/90-R)

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**Mankato:** FP partner to join four board-certified family physicians, ages 31-41, in fast-growing, full-range practice, includes ob. Population 40,000+. Seventy miles to Twin Cities. Four colleges nearby. 90+ physicians on hospital staff. Academic appointment available. Call: Tony Giefer, M.D. (507) 387-8231. (1/90-R)

**Urgent Care/Primary Care** physicians for over 90 group positions in metropolitan Phoenix/Tucson, Arizona. Excellent compensation/partnership opportunities. Other quality positions nationwide. Send CV or call Mitch Young (MM), P.O. Box 1804, Scottsdale, Arizona 85252; (602) 990-8080. (1/90-\*R)

**Family Practice—Hospital-Sponsored Clinic Opportunity:** Dynamic, growth-oriented hospital in beautiful north-central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus, and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, Minnesota 55435; (612) 835-5123. (R)

**Family Physician, BC/BE** wanted to join three board-certified MDs in well-established, expanding group practice. Enjoy a progressive, rural city within easy reach of St. Cloud and Minneapolis. Contact: Dr. Jim Mohs, Melrose Clinic, 603 West Main Street, Melrose, Minnesota 56352; office: (612) 256-4228, home: (612) 256-3488. (R)

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**Exciting Pediatric Opportunity:** Full or part time. East-metro practice offering stimulating combination of primary care, teaching, and consultative services. Excellent salary and benefits. Inquiries to Ruth at (612) 777-8211. (R)

**Family Physicians:** Well-established south suburban Minneapolis family practice group seeks associates part/full time to staff day clinic. Excellent call schedule, salary, and fringe benefits. Also seeking locum tenens to staff PT/FT Urgent Care Centers and/or day clinic. Contact: Administration, Family Physicians, P.A., (612) 435-4125 or send inquiries to Suite 100, 14050 Nicollet Avenue South, Burnsville, Minnesota 55337. (\*9/89-R)

**Practice For Sale—Wisconsin:** Southwest Milwaukee suburb. Internal medicine or primary care. Located on main thoroughfare in hospital neighborhood. Reasonable terms. Financial assistance available. Inquire: PO Box 727, Elm Grove, Wisconsin 53122. (\*R)

**North Carolina—Family Practitioner, BC/BE:** Several exciting, yet different practice opportunities in fast-growing, beautiful Southern town. Service area of 200,000. All served by 400+ bed, fully accredited hospital. Send CV and letter to: Minnesota Medicine (839), 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414. 1-2/90

**BC/BE Pediatrician** to join seven-pediatrician, four-P.A.-C. group experiencing rapid growth. Affiliated with large medical center with 4,000 deliveries per year in northwestern Minneapolis suburbs. Teaching affiliation with University of Minnesota. Competitive salary and fringe benefits. Send CV to: Minnesota Medicine (840), 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414. 1-2/90



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**Northern Lakes:** Family practice opportunities in four northeast Minnesota and one northern Michigan communities. Offering spectacular natural beauty, abundant recreational activities, and competitive packages. Contact: Susan Sowiewa, Northern Lakes Health Care Consortium, 1017 East First Street, Duluth, Minnesota 55805; (218) 726-5587. 1-2/90

**BC/BE Family Physician,** full-time or part-time, progressive community clinic, competitive salary and benefits, no ob, no call. Contact: Gordon Lester, M.D., West Side Health Center (La Clinica), 153 Concord Street, St. Paul, Minnesota 55107; (612) 222-1816. 1-2/90

**Medical Director, Student Health Clinic, South Dakota State University:** Family practice physician or internist to provide clinic leadership and direct health care/treatment for college students. Must be eligible for South Dakota M.D. or D.O. licensure. Familiarity with college-aged adults' health issues highly desirable. Contract length negotiable nine to 10 months. Benefits include health and liability insurance, retirement, and all weekend and holidays free. Progressive community has excellent schools, recreational opportunities, clear air, low crime, affordable housing, and no state income tax. For application information, contact: Don Smith, Director of Student Health & Counseling, 202 West Hall, SDSU, Brookings, SD 57007; (605) 688-4157. SDSU is an AA/EEO employer. \*1-2/90





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**Minnesota, Duluth:** Immediate opening for emergency physician to join 150-physician multispecialty group as staff physician at St. Mary's Medical Center. Must have postgraduate training in primary care or emergency medicine with current ACLS/ATLS/PALS certification. 36-hour work week. Salary above average for region with excellent benefits. Twenty-two thousand visits per year. Regional cardiac, neonatal, and pediatric center provides a full complement of tertiary services including medical helicopter to the region. Duluth offers all the amenities of a big city without the hassles. Unsurpassed outdoor recreational opportunities. Respond with complete CV to: Stan Salzman, Executive Director, The Duluth Clinic, Ltd., 400 East Third Street, Duluth, Minnesota 55805; (218) 722-8364. 1-2/90

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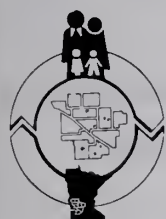
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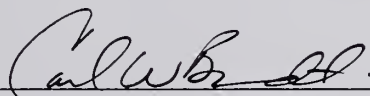
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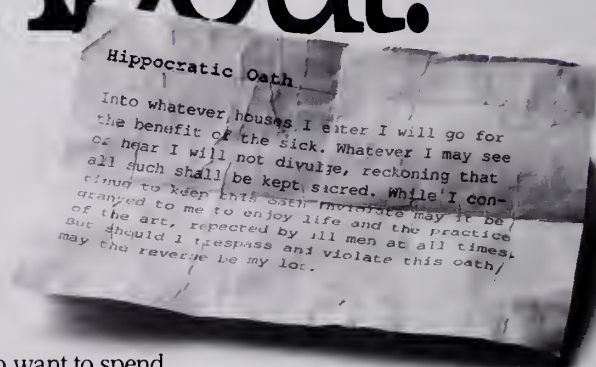
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Also Inside: MMA Physician Survey

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MARCH 1990

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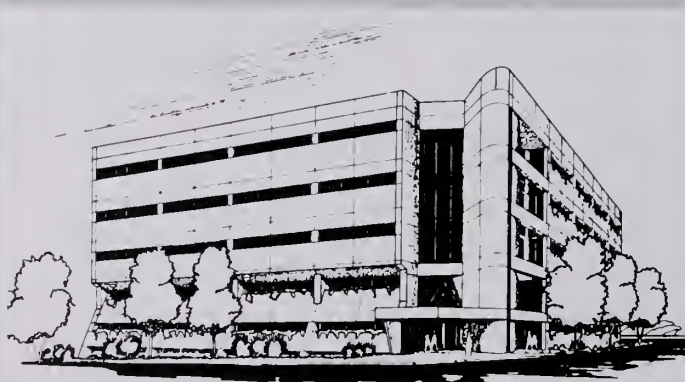
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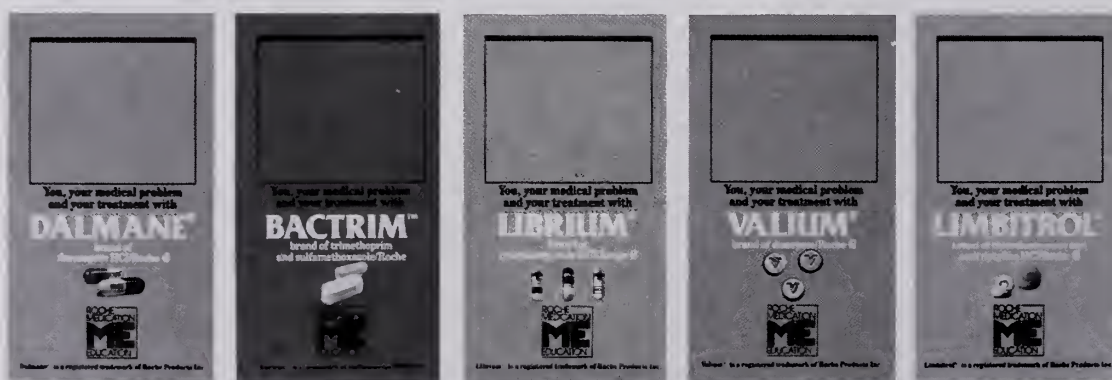


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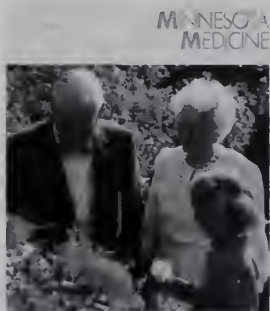
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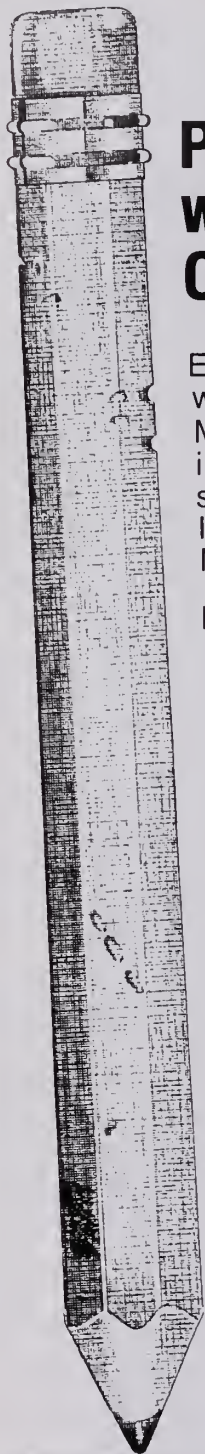
**GERIATRIC MEDICINE** As medical progress continues to increase longevity and as baby boomers age, a growing senior population will demand more and more medical attention. To date, the number of geriatric care givers lags behind this demand, but there are signs of improvement. This month's feature story and interviews explore how Minnesota physicians and programs are rising to meet this growing need.

Photo courtesy of Presbyterian Homes of Minnesota.

## Specialty Organizations

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Minnesota Society of Anesthesiologists  
Minnesota Dermatologic Society  
Minnesota Chapter, American College of Emergency Physicians  
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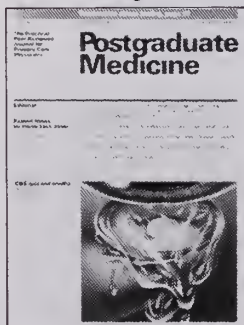
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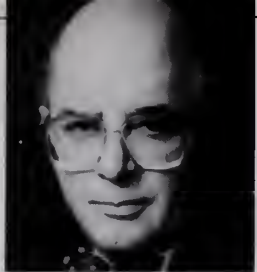
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RICHARD L. REECE, M.D.

### The Limits of Life and the Limits of Technology

"There are three biological and social factors of central consequence that together constitute a potent force. . . . One of them is the reality of an aging population in general and the rapidly increasing elderly in particular. . . . The second reality, more social than biological, is the unrelenting drive for improved technology. . . . The third reality, political and cultural, is that of a powerful, unrelenting public demand for better health and a longer life."

Daniel Callahan, *What Kind of Life: Limits of Medical Progress*, Simon & Schuster, New York, 1990

**T**his editorial is about limits—the limits to resources Americans are able to spend on health care, including what we can spend on the very old in our society; the limits of human life itself; and the limits American culture will allow.

#### American Cultural Values

The problem with American health care is not our waste or inefficiencies; it is not our individual or collective greed; it is not our patchwork system; it is not our failure to organize, develop, and put into place a one-payer universal health care scheme. Our problem is our successes and the way they interact with our values. These values include our deep belief, indeed our obsession, with technological progress; our belief that every American ought to have an open-ended individual choice of physician, hospital, and health plan; and our belief that American society has no right to set limits on the amount of care, the expense of care, and the age at which we can receive that care.

#### The Limits of Our Success

Here is how Daniel Callahan, author of *Setting Limits: Medical Goals in an Aging Society* and *What Kind of Life: The Limits of Medical Progress*, sums up our dilemma:

"Medicine and health care have, for one thing, entered a new stage of their history, one where the successes of medicine and not its failures are—in the way they interact with our values—the main source of our problems.

"That success has raised expectations beyond a sustainable point, addicted the system to an unending search for new and usually expensive technological solutions (many of them occasioned by earlier technological solutions), and guaranteed marginal gains for ever higher costs. Scientific medicine once thought itself standing on an open frontier, cheap to prospect, easy to plow, and endlessly rich in its great reward—better health and longer lives. But that frontier is, and must be, forever rugged and ultimately unconquerable. It takes, ironically, money and success to discover fully this truth, and we are now doing so."

#### 'Flat of the Curve' Medicine

As Stanford health care economist Victor Fuchs puts it, we are now practicing "flat of the curve" medicine. No matter how much more technology we pump into the system, the return in dollars, improved health, and longer life expectancy is marginal. Given the best technology, we cannot, to take the most conspicuous examples, conquer chronic disease, frailty, or our inevitable deaths.

#### High-tech—Where We Excel

We Americans handle high-tech approaches to acute disease magnificently. And for good reason. After all, given our penchant for technological progress and its ability to intervene, conquer, and cure, high-tech fixes are where the action, the prestige, and the money are.

#### Low-tech—Where We Fail

But we as a people are not gifted, or even competent, at coping with low-tech approaches to chronic disease, frailty, and infirmity. We maintain a blind belief in the abilities of high technology to solve these problems in our own homes and in nursing homes. That is why the home health industry—and the use of drug pumps, respirators, home monitoring equipment, dialysis apparatus, intravenous therapies, and other technological tools in the home—is said to be a boom industry.

#### The Old Age Wave

This technology is fed by an aging population and public demand. The number of people over the age of 65—30 million, some 12 percent of the population—is expected to double within the next 30 years and will make up 20 percent of the population. The number of people over the age of 85 will triple over the same period. Centenarians, the fastest-growing cohort, will quintuple in numbers.

This aging population will surely command more, not less, of our limited resources. And the old-old will demand the best.



# Raising Kane about the Elderly

**REECE:** *Dr. Kane, even before you were appointed as the Minnesota chair in long-term care and aging, you had a consuming interest in problems of aging and long-term care. How did you get into this field?*

**KANE:** I began my career on a dare. I was directing a program in community medicine at the University of Utah in the Department of Community and Family Medicine. I was at a faculty meeting. The head of family medicine was complaining that family practitioners were unappreciated. I said, "No wonder, you always want to take care of those nice young families; they're easy to care for, and everybody likes to take care of them. If you want to do something socially useful, why don't you take care of all those old folks crowding the emergency room every morning?"

He looked at me smugly and said, "If you're so smart, why don't you do it?"

I decided that I would do it. I had never set foot in a nursing home; if I had, perhaps I never would have accepted the challenge.

Our first project in the early 1970s was to set up a program to use geriatric nurse practitioners to deliver primary care to nursing home residents. That got me into the nursing homes and really opened my eyes to a whole area of "incognito" care.

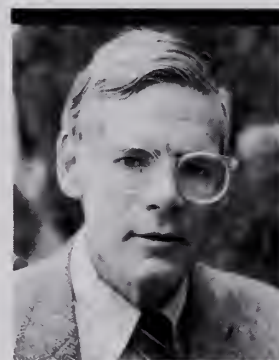
Here were people who had been written off by most of medicine and society. But contrary to what people believed, this was a group for whom the smallest increase in care could produce the largest benefit.

One of the reasons I came to

Minnesota was because of its strong record of commitment to improving long-term care. The chair reflects that spirit of innovation and dedication. It was funded by the contributions of many long-term care providers who saw it as part of a larger effort to improve this neglected area of care.

## Elderly Myths

**REECE:** *In America we have not-so-subtle discrimination against the*



ROBERT KANE, M.D.

Kane to page 41

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Robert Kane, M.D., dean of the University of Minnesota School of Public Health, assumed the nation's first chair in long-term care and aging last September. This new position comes as no surprise. Dr. Kane is a long-time activist for better, more realistic, and more orderly care of our nation's elderly.

If I were a punning man, I might be tempted to say that this interview contains Robert's Rules for Elders. Or that by talking to our interviewee, I'm just trying to raise Kane about the elderly.

But I will resist that temptation. Instead, I will highlight his beliefs.

► First, much of our lack of progress in nursing homes stems from lack of a clear mission. Nursing homes are, Dr. Kane asserts, neither "homes" nor institutions where "nursing" takes place. Homes, after all, are where people live independent, purposeful lives, and nursing restores people to a sense of betterment and even to health.

► Second, we have never really stepped back to take a long-term look at long-term care. Instead, we take snapshots of admissions, discharges, and deaths without following long-term courses of nursing home residents. Most of us don't even know that one-third of nursing home patients return home, many to an active and useful life.

► Third, we have let entrepreneurship and fear of litigation impede long-term care for the elderly. By providing public care in a proprietary setting, and then throwing a net of regulations around owners to prevent catastrophe, we have created a Byzantine bureaucracy focusing on rules rather than on people.

► Fourth, we have created nursing homes as second-rate hospitals with second-rate personnel. For physicians, we have built a second-rate medical environment with low pay, low prestige, a low level of support, and low hopes of achievement.

► Fifth, we don't know which nursing homes are good and which are bad, and professionals have no means of tracking improvement. Nursing homes, in short, have an information vacuum—a vacuum Dr. Kane intends to fill.

## A Crusader for Opportunity for the Aged

**REECE:** *Daphne, you're president of MAO, Minneapolis Age and Opportunity. When did you found MAO?*

**KRAUSE:** I started talking about uniting seniors in about 1967. At that time, I served on a number of boards, one of which was Mobilization of Economic Resources (MOER), Minneapolis' Office of Economic Opportunity. We were developing programs for almost every possible age group and prob-

lem, but nothing for older people.

One day I asked why not. The head of MOER, Harry Davis, said, "Great. You're chairman."

I had some learning to do. So I got together a number of older people, and we started meeting with people from Hennepin County Welfare, Medicare, and so on. We were meeting just once a week because the agency people said older people couldn't handle a heavier schedule and that their



DAPHNE KRAUSE

*Daphne Krause, president of Minneapolis Age and Opportunity (MAO) for 23 years, has a dream. Her dream is to serve people in an environment, preferably their homes, in which they feel comfortable, and in such a fashion as to preserve their dignity. As she pursues her passion of service, she is invariably positive, realistic, and supportive.*

Daphne practices what W. Clement Stone, patron saint of positive thinking, preaches: "What the mind can conceive and believe in, the mind can achieve." When Daphne, an English war bride of World War II who has since become an American citizen, conceived of MAO, she thought of it as a bootstrap networking service agency wherein older citizens would help themselves and receive needed help through the use of staff and volunteers, help of government agencies, and assistance of other community organizations and anybody else who wanted to pitch in time, money, or supplies.

Daphne and her colleagues supply nearly 30 different types of services to more than 5,000 constituents (94 percent of whom are over 60). These services include counseling, legal services, homemaking help, home delivered meals, a medical clinic and pharmacy services through Abbott Northwestern Hospital, free blood from the War Memorial Blood Center of Minneapolis, a 24-hour emergency system, home repair, and "operation friendship"—volunteers serving as friends to the lonely.

In short, if you've got a problem, Daphne and MAO will do everything within their power to fix it, which is why Daphne has earned the nickname "Mrs. Fixit." She is also a master of detail—at documenting sources of funds, at showing the federal government exactly how much money she is saving the treasury (\$1,486,576), at counting the number of people served (5,212 in 1988), and at calculating the number of services provided (112,294 in 1988). She is a capable executive who runs a \$1.5 million enterprise with a staff of 100 employees, 24 medical staff members, and 50 volunteers.

Yet what sustains her is not money but her belief that you can do anything you want. She doesn't believe in obstacles; she believes in finding a way.

attention span wasn't that good. The older folks asked me if I was serious about trying to do something, and I said yes. They said, "How do you expect to get it done when we meet just once a week?" I decided then to free my mind of preconceptions.

We started meeting in the basement of St. Stephen's church every day from one to five and with the agency people once a month. The seniors, who became the governing board of directors of Minneapolis Age and Opportunity, made it clear that they did not want to be oppressed by the problems of the aging. Meanwhile, from my involvement with other groups, I realized that younger people were becoming very afraid of older people, believing they were a drain on the country's resources.

### Attitudes on Aging

**REECE:** *You're credited with coining the word "ageism."*

**KRAUSE:** I plagiarized it from racism. It was such a natural.

*continued*



Remember where I was—this was the late '60s. I was on the Mobilization of Economic Resources board, which was very involved with trying to give minorities, women, and all kinds of people opportunities. Racism and sexism covered a multitude of sins but never applied to older people, who in some ways had the worst kind of "ism" leveled against them. Older people were discriminated against in jobs, housing, and attitudes. We say a "dirty old man." Why does he have to be old? If a widower fell in love and wanted to marry, it was regarded as something humorous or obscene and not something natural and normal.

REECE: *In an ideal world you'd like to see an ageless society. What would that look like?*

KRAUSE: I don't know necessarily that it would look any better. It would be different in the sense that age and attitudes about age would not define who you are. I remember an elderly pastor in his 90s telling me

he was going to see his elderly parishioners, who turned out to be in their 60s and 70s. He worked every day, he was very physically active, and he enjoyed good health and a good mind; therefore, he wasn't old. But he was bigoted; because his parishioners were over 65, he thought they were old—he wasn't, but they were.

REECE: *To use a bad pun, the pastor had not gone out to pasture.*

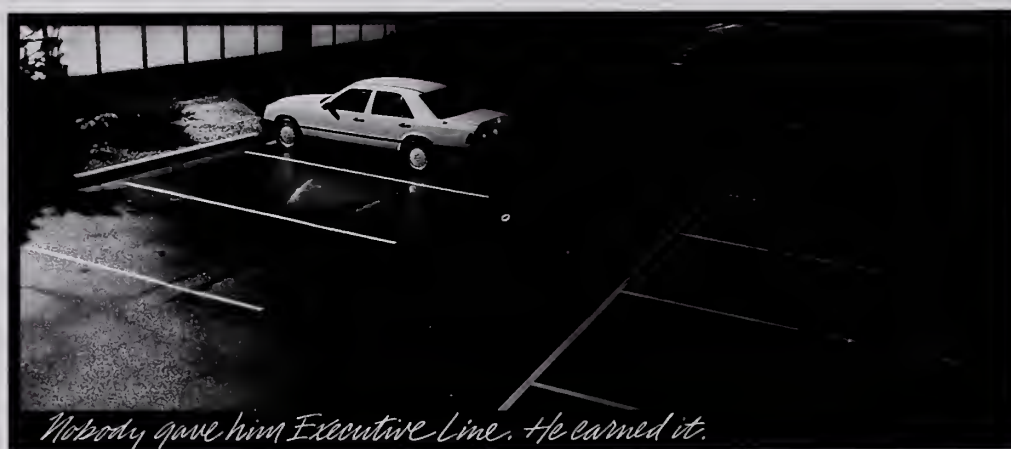
KRAUSE: Right, and it's a good pun.

### Providing Opportunity for the Aged

REECE: *What is MAO's mission?*

KRAUSE: Basically, MAO came about because I realized that to solve the problems of the future, it's necessary to keep people as active and healthy as possible. Its purpose was, and is, to provide a network of extensive and comprehensive social support and medical

services for older people and some younger handicapped people, to provide options to unnecessary institutionalization in a nursing home or hospital. MAO was started to support existing health services by interposing a level of care that supports the higher levels of care. A key to MAO is not to overlap health care providers' roles. You wouldn't send a specialist if a primary care physician will do, you don't send an M.D. if a nurse practitioner will do, or a nurse practitioner if an R.N. will do. Each has a place in providing care. When I recently spoke to health professionals on the Queen Mary, I was asked who is the captain of our ship. The physicians felt I should say they are. But I said it's whomever the patient believes is captain. Every case is different. If the patient is medically stabilized but needs somebody to wash his floor and clean his bathroom or get him food, he doesn't need a doctor for that. Each has its own discipline, and each element helps the



others as needed.

I thought if we could apply the correct environment—preferably the home—and the correct level of care, we could reduce costs without reducing the quality of the care. It meant eventually, of course, that hospitals would be taking more and more of the sophisticated cases. I was working through Abbott Hospital at that time, in 1969, and I talked with Abbott's president Robert Millar, about my ideas. He didn't laugh at them. He said the major problem would be getting the disciplines to work together without placing their own discipline first. I thought that was O.K., because I'm not educated in any particular discipline, and I wasn't going to favor any discipline. But I realized then that I had to get it all together without the money to do it.

So I decided to evaluate the cash flow of the hospital, and I discovered that they put their overhead into patient beds. Therefore, the more empty beds they had, the

higher their overhead. I told Mr. Millar, "You know, if you let people with low incomes in, and you absorb the cost above Medicare, it would increase the use of your hospital, and you could break even." He agreed to give it a try. In 1973, we expanded the medical program, and I sent out flyers saying that low-income people could come to Abbott for their health care. About 7,000 people called us and came in. We were overwhelmed. You can't imagine the lack of medical care for these people. These were people who had outgrown their savings, and they wouldn't go back to their doctors for care because they knew they couldn't pay for it.

### Obstacles to Providing Care

**REECE:** *You're describing a period about five or six years after the enactment of Medicare? Medicare hadn't even touched those problems?*

**KRAUSE:** That's correct. Medicare doesn't pay as much of the cost as

most people think. It pays for just so much. That's why the catastrophic care plan was needed.

**REECE:** *Do you believe the repeal of the catastrophic care plan was a mistake?*

**KRAUSE:** Yes. The plan wasn't perfect, but it was a step along the way. Far too many people are dying in this country without care. It's something we don't like to look at, but it is a fact. I'd like to think that any country that wants to provide good health care must provide it to all.

With MAO I have inserted my own way of lowering health care costs, but when you need a physician, nothing takes his place, and we shouldn't kid ourselves about that. When you need a hospital, nothing takes its place. We get so emotional when we hear of one human being needing a transplant or some other dramatic treatment, and yet there are thousands of people—and that is not an exaggeration—dying every day because

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they don't get proper health care. Either they're not sophisticated enough to know where they can get help, or the help doesn't exist.

**REECE:** *Or pride stands in the way?*

**KRAUSE:** Often fear stands in the way. Pride, yes, in the sense that most elderly believe if you don't pay your way, you're a bum. They believe very strongly in the work ethic, and most of the people we see at MAO have had a job, had savings, often had a house, but it has all gone to paying for major medical care. We have few of the very poor, completely destitute. The kinds of people who come in to MAO are former teachers, physicians, dentists, insurance agents—people who felt they had saved enough to take care of themselves and who believed that Medicare would cover the costs they couldn't, and they found it wasn't so.

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**"It's rather peculiar that instead of enjoying the gift of a long life, we are saying we don't want people to live too long."**

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I've tried to keep people in their homes whenever possible by putting together this network of services. Without MAO, most of them would be in the hospital or under some other institutional care.

## Empowering the Elderly

**REECE:** *One of your fundamental underlying beliefs is that you can keep people in a home setting where they are happier and more productive and in an environment that is much more caring and curing than an institution.*

**KRAUSE:** Only if the patient believes that. The patient has to want it and want it strongly. It's surprising how many of them do.

I firmly believe in networking all resources. Under MAO's network we have our own physicians and our own nurses. We have an

arrangement with the hospital that none of the patients will be kept out of the hospital because they haven't the money. They don't pay any costs above Medicare to the hospital or the doctors. In order to reinforce the network, we have our own counselors in the hospital.

In addition, our nurses have found many specialists who are willing to be associated with us and willing to accept our patients with Medicare as full payment.

**REECE:** *You have had a high acceptance rate?*

**KRAUSE:** Yes, we have high acceptance. I believe we have over 90 specialists.

**REECE:** *How do you assess a patient's needs?*

**KRAUSE:** In designing care plans, I ask people first to look at what patients can do for themselves and never to take that away, but to reinforce it. It's extraordinarily important that patients perceive their care as hopeful. We also reassure patients that if something happens and they need more care, we will be there to provide it.

With the patient's permission, we ask their relatives or friends to come in and help if they can. We find that adult children and friends or neighbors are likely to do more when MAO is involved. We tell them all they have to do is not promise too much, and if they are unable to come in, they should let us know and we'll come in and do it.

MAO does whatever is left. For instance, a woman may be able to come in and wash her dad's clothes on the weekend and clean up his apartment, but he can't cook for himself, and he needs somebody to come in and give him a bath and personal care. MAO would do those things. The importance of this is that it reinforces the human being; it's a humane way to provide care.

Just the fact that they need care frightens people. This fear is often not expressed and includes fear of hospitals. The idea that people don't worry about dying is utter nonsense. Most of us have some fear. But that is not their greatest fear. Their great-

est fear is losing control of their lives.

**REECE:** *Do nursing homes foster those fears?*

**KRAUSE:** Even the best of nursing homes have some difficulty with this. Patients perceive that when they go into a nursing home, they go there to die—unless it's somebody stubborn like me who says, "No way. I'm going to make the best of it." But some of these people grow to enjoy the companionship and the programs offered in the nursing home setting. Many people remain comparatively independent and can make new lives for themselves. But none of them want to be in the nursing home unless they are so tired of trying to cope—even with help—that they feel they are better off there.

When you think of it, it's rather peculiar that instead of enjoying the gift of a long life, we are saying we don't want people to live too long. Instead of rejoicing in having better education, better health care, better nutrition, we lament the burden older people are to our resources.

**REECE:** *Let me try to summarize your philosophy. It seems to me it's one, face unpleasant situations head on; two, establish a network of services; three, find the resources to do whatever needs to be done and do it.*

**KRAUSE:** Right, and that's why you need a network; otherwise, you put people in a box, and that doesn't do the job. ■

## Fair Rural Reimbursement

I read with great interest the January 1990 issue of *Minnesota Medicine* regarding rural health care. Community hospitals, particularly in out-state rural communities, have limited ability to cover marginally reimbursed expenses for providing basic levels of care.

Adequate reimbursement from Medical Assistance at the state level and Medicare at the federal level would significantly help address the financial difficulties rural hospitals and health care providers are facing. It would be easy to implement, since no new program would need to be established and such a plan would not be as vulnerable to political manipulation. There would be no "favored status."

*Michael R. Busian, M.D.  
Morris Medical Center, P.A.  
Morris, Minnesota*

## Drivers with Epilepsy

On October 22, 1988, the Minnesota Department of Public Safety adopted revised rules regarding licensure of drivers who have experienced a loss of consciousness or voluntary control. These rules primarily affect drivers with epilepsy or diabetes, but other conditions apply as well. Because physicians play such a key role in the licensure of these drivers, I have summarized the major changes in the rule.

The rule defines the loss of consciousness or voluntary control as the inability to assume and retain upright posture without support, or inability to respond rationally to

external stimuli. Not all seizures are considered loss of consciousness or voluntary control under this rule.

For drivers with epilepsy, the most significant change in the revised rule is a reduction in the waiting period after an episode from one year to *six months*. For drivers with diabetes, the rule institutes a standard waiting period for the first time. For drivers whose episode was related to the abuse of alcohol or illegal substances, the waiting period remains one year.

The new rule also clarifies the situations in which a driver may retain driving privileges after an episode. In all cases, the driver's physician must recommend retention of the license for the following exceptions to apply:

- ▶ If the episode resulted from a change or removal of medication on the physician's orders, or
- ▶ If the episode was the person's first, or
- ▶ If the episode was the first in four years, and that episode was due to temporary illness treated by a physician, and the short- and long-term prognoses for episode-free control of the person's condition are favorable, then the person may retain driving privileges.

The new procedure for reviewing a driver's condition remains essentially the same as the old rule. Drivers are required to submit annual statements from their physicians on a form prescribed by the commissioner regarding the driver's medical history, present situation, and the prognosis with respect to the driver's ability to operate a motor vehicle safely. If a driver has

submitted a report indicating a recent episode, the review period is generally every six months for a year, or at shorter intervals as recommended by the reporting physician. If a driver has been free from episodes of loss of consciousness or voluntary control for four years, a report will be required every four years, unless otherwise recommended by the physician.

If you have specific questions about how this rule applies to your patients, please contact the Department of Public Safety or the Epilepsy Foundation of Minnesota.

*Joanne B. Rogin, M.D.  
Chair, Professional Advisory Board  
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# Values

Robert O. Fisch, M.D.

## Treasures

Some years ago I took an unforgettable boat trip around the beautiful Greek Isles, including the island of Crete and the Palace of Knossos, which was the center of the Minoan civilization that flourished around 2000 B.C. Delightful frescoes of blue dolphins, flying fish, bulls, and acrobats are the best known of their remaining paintings, which even influenced the Impressionist painters. The Minoans used for their personal seals such symbols as the Christian cross, the Greek patriarchal cross, five- and six-pointed stars, and the swastika—symbols that later were used for broader identifications. A volcanic eruption from the sea at Santorin caused a tidal wave of such magnitude that all life and artifacts were wiped out in the surrounding area of the Mediterranean Sea.

When I visited, the treasury of the King's palace held six pieces of crushed metal weighing no more than a total of a few pounds. Five thousand years ago, these were their most treasured items.

## Stradivarius

Antonio Stradivari has been universally regarded as the greatest of all violin makers. His instruments have incredible richness of tone and the ability to respond with ample reserve of power. Seven hundred of his original instruments are known to exist today.

In 1954, after the completion of my medical training, I commuted by train between my home in Budapest, the capital of Hungary, and the mining town of Tatabanya, where I worked as a family practitioner. On the train I met many

others who, like me, were forced to work outside the city because we were considered the ideological enemies of the communist system.

For the first time, I was making enough money to be able to buy more than the "essentials." At 29 years of age, I had saved enough to buy my first tailor-made suit. One of my traveling companions was a lawyer who had been one of the top prosecutors in the Hungarian judicial system; now, however, he worked as a clerk in a collective. One day he asked me if I had some money, because someone

wanted to sell a Stradivarius violin. It probably had been stolen from the Esterhazy estate during the occupation by the Russians. (The Esterhazy family was known throughout the centuries as one of the richest landholders. They were supporters of the arts, and Haydn lived on their estate. In the 17th century they built an opera house that was visited by all the important musicians at the time.)

Since I played violin, I went to see the Stradivarius. The very old case revealed a beautiful bow and a magnificent instrument. Through

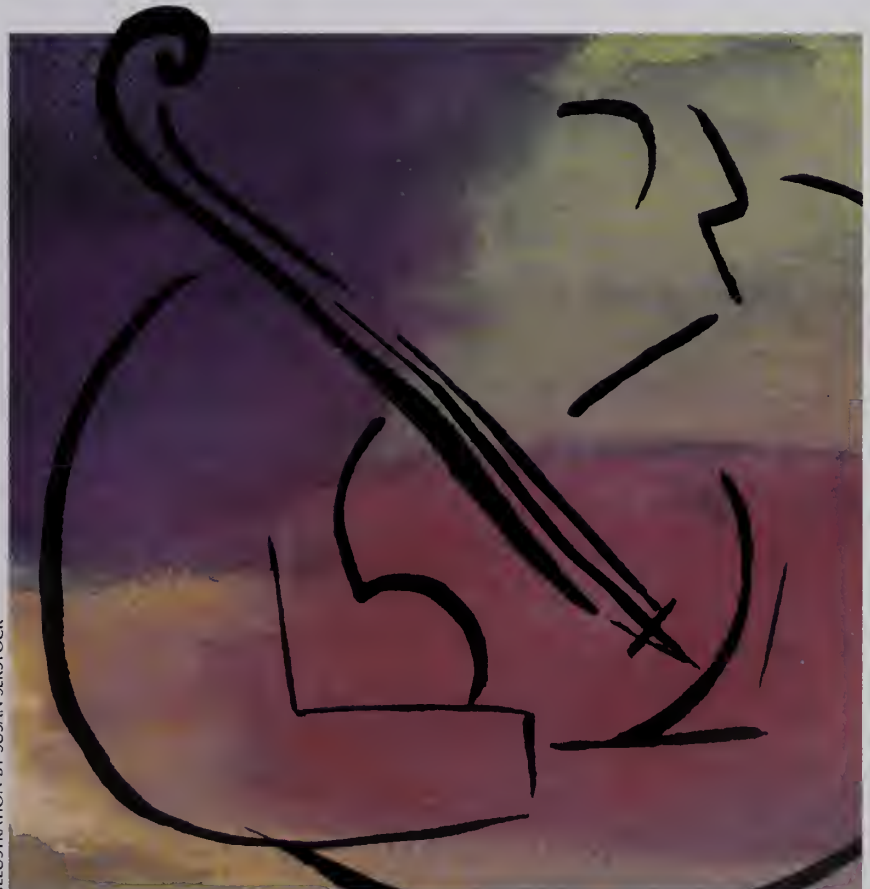


ILLUSTRATION BY SUSAN SERSTOCK



the F-hole I saw the engraving of Stradivari's name. How much? The price he asked was the amount I had been saving for my suit. I hesitated, but not much. I had waited for so long to buy the suit. The violin in that communist society was no more than an unsalable item, although according to a musical dictionary, "The Stradivari violins are priceless."

### Irises

Vincent van Gogh developed an expression of rhythmic line and turned colors and textures into a dynamic personal experience. He suffered many ailments, and his life was mostly influenced by manic depression—as a friend of mine once said, "like the suffering of the oyster producing a pearl." Van Gogh's suffering produced some of the most profound paintings during his short but memorable life. In spite of the unique quality of his paintings, well-preserved letters describing the creation of each of his paintings, and the fact that his influential and supportive brother was a Parisian art dealer, he sold during his lifetime only one painting—for 400 francs. In the final weeks of his life, when fame caught up with his brilliance, van Gogh was already beyond the frivolousness of earthly recognition. His suffering reached a crescendo, and he killed himself.

Nearly 100 years after van Gogh's death, a Japanese collector bought his *Irises* painting for \$50 million, the largest amount of money ever paid for a painting—and for the work of an artist who had sold only one painting in his life.

### Lipstick

When you walk through the cosmetic section of a department store, the various lipsticks are lined up like colorful flowers of the meadow, tempting and attracting women with their many shades and hues. I have seen the darkest place on earth in the shadow of misery, where people had nothing but their bare existence, and even that was limited. Even so, hidden gold pieces—symbols of the only buying power in a German con-

centration camp—remained, in spite of searches and confiscations. How, I do not know, but some people had lipstick for sale. One French Napoleon gold piece was the price of a lipstick. It was sold not for its refined color or shade for making the lips more exciting, but for its flavor, for making the lips less hungry.

### Medals

Oh, how beautiful to see the colorful, sparkling medals exchanged by leaders of the world! How ridiculous to see the Russian generals whose plentiful decorations cover both sides of their uniforms. Some people might wonder whether they had additional medals attached to the seat of their pants.

A few years ago it was fashionable to use military medals on women's jackets. I was traveling in Europe and looking for a gift for my wife. I went to an antique shop. Hundreds of iron, bronze, and silver medals from the First and Second World Wars were on sale for pennies. Looking at the medals, I saw suffering, pain, blood, and unfulfilled dreams. I imagined honor and pride, decency and idealism, responsibility and duty, a pat on the shoulder, an attempt to straighten up as the medals are pinned on. I could hear the drums and music, the speeches and the cheers. I envisioned a handshake for the widow, a hug for the orphans, and tears.

A decade later, they are sold for pennies.

### Values

A scholarly rabbi once was asked what are the three most important things to give to a child. "Example, example, and example," was his answer.

*Robert Fisch is a professor of pediatrics at the University of Minnesota and a frequent contributor to Minnesota Medicine.*

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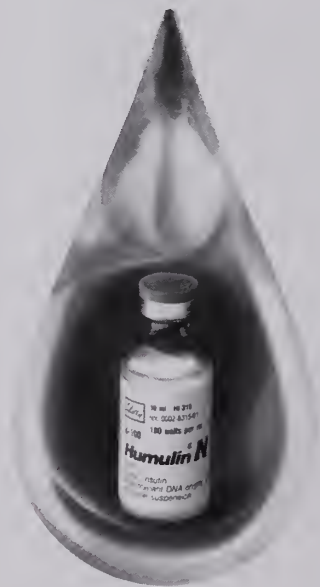
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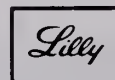


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# THE COMING OF Age IN MINNESOTA

**The future looks increasingly gray for Minnesota physicians. More and more senior patients will need health care services in the 1990s. Yet studies suggest physicians may not be ready, willing, and able to treat our growing elderly population.**

By Peter J. Kizilos





Our experts say the future may look gray, but it needn't be bleak. Innovative programs are preparing Minnesota's doctors to meet seniors' medical needs, and those physicians may be in for some exciting times.

If demographics are destiny, Minnesota doctors can expect some radical changes in the state's patient population—and the practice of medicine—in the very near future. A new age group—seniors—will wield the power of numbers in the 1990s, and they will have a major impact on the practice of medicine and the types of problems physicians will face well into the 21st century.

National population trends indicate that the number of people over 65 will increase from about 30 million in 1987 to nearly 40 million in 2010. The number of the "oldest old" people—those 85 and older—will grow the fastest. While the

older population as a whole increased 11 percent from 1980 to 1985, this group increased by 20 percent, write Beth J. Soldo and Emily M. Agree in "America's Elderly," published in the September 1988 *Population Bulletin*. "By the year 2000, the number of people aged 65 and older is expected to increase by 22 percent, while the number of oldest old is likely to increase by an astounding 82 percent."

You don't have to be a statistician to realize that this population trend will dramatically affect the way many doctors practice medicine. According to a special report on older adults in the May 28, 1987, *New England Journal of Medicine*, the 12 percent of the population over age 65 accounts for more than 33 percent of physicians' time, 25 percent of all medications, and 40 percent of acute hospital admissions.

Minnesota won't escape the

national trend; the geriatric growth curve here is steeper than the national average, partly because of the state's high life expectancy; only Hawaiians live longer as a rule. In 1986, Minnesota ranked 19th in the number of elderly residents as a proportion of total population. According to the state demographer's office, our 65-and-over population should increase about 14.5 percent from 1980 to 1990. The 85-plus age group is projected to double from 57,789 in 1980 to 112,483 in 2010.

Population experts began predicting the graying of America in the late 1970s and early 1980s, but the benefit of foresight has not made adapting to the future any easier. Studies suggest that the United States will not have enough primary care physicians trained to treat the medical problems of these older adults. In the March 1989 *Journal of the American Geriatrics Society*, Albert L. Siu, M.D., and

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**"The differential diagnosis of aging versus disease is probably one of the most subtle and challenging that doctors face."**

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colleagues document the shortage of geriatricians in this country:

"A number of studies have projected that the number of geriatricians being produced is insufficient to meet the needs of an aging nation. The first of these estimated that the nation needed 10,000 geriatricians, 700 to 2,500 of them in academic careers. A second study estimated that 7,000 to 10,000 geriatrician full-time equivalents would be needed by 1990, including 1,500 academic geriatricians and 900 academic geropsychiatrists. Another study has projected the need for 2,600 geriatrics faculty (1,300 of these to be physicians) by the year 2000. Most recently, an Institute of Medicine report estimated that 2,100 faculty members in geriatrics would be needed in the nation's medical schools by the year 2000. Whatever the number needed may be, the number of geriatricians produced to date (approximately 400) falls far short.

"This shortfall in geriatrics manpower is potentially even greater, because of increased demand for geriatricians by new systems of care (such as health maintenance organizations) and because of still greater projected increases in the size of the older population," according to the authors.

**P**erhaps the greatest problem is physicians' lack of interest in, if not aversion to, geriatrics. This reluctance is due to a number of reasons. Geriatrics is not financially rewarding, and the practice lacks prestige; seniors often present complex problems, and they often don't seem to get better, said Joseph Keenan,

NANCY LEECARD, HCMC





M.D., professor at the University of Minnesota Medical School and president of the American Academy of Home Care Physicians (a national organization of physicians that focuses on enhancing the quality of home care for the elderly and other long-term care consumers). Motivation to treat these patients is rare among physicians, Keenan says. "There's a tendency for fatalism, ageism, and nihilism to creep into the care of older people."

Part of the problem is that medical training does not foster an appreciation for older patients, says Robert Kane, M.D., dean of the University of Minnesota's School of Public Health and holder of Minnesota's first chair on long-term care and aging. "We're putting out a generation of physicians and providers who feel very uncomfortable dealing with older people. They don't like it, so they tend to avoid it," said Kane, who literally wrote the book on geriatrics training—*Geriatrics in the United States: Manpower Projections and Training Considerations in 1980*—and was in the front ranks of those sounding the alarm on geriatric care a decade ago.

The notion that older people don't benefit from medical intervention also dissuades some physicians from specializing in geriatrics. As Kane explains it, "There is an unfortunate belief that there isn't much you can do to change the course of aging anyway. Young physicians get so turned off to geriatrics when they are trained to go off and stamp out disease and cure people, and they can't do that with older people."



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The somewhat uncertain professional status of geriatrics also deters some doctors. Keenan believes that because theirs is such a young field, geriatricians often feel slighted by their colleagues in better-established specialties. "[Geriatrics] has only in recent years

become identified as a special area of expertise or knowledge that has its own area of testing and knowledge," he said.

Geriatrics is not considered a professional specialty or subspecialty, but in 1988 the American Geriatrics Society (AGS) developed



a special certificate of added qualification in geriatrics. The examination is offered under the auspices of the boards of internal medicine and family practice. Physicians who are diplomates of the American Board of Internal Medicine or the American Board of Family Practice are eligible for certification.

Currently, the financial rewards are not as enticing as they are in some other specialties, which also discourages some young doctors from entering elder care, says Patrick Irvine, M.D., director of geriatrics at Hennepin County Medical Center (HCMC) in Minneapolis. "Although there's an increasing population of older people, it isn't clear that people in geriatrics can make it economically, and it isn't clear what kind of role they will play once they've completed their training," he said.

"Basically, older people are reimbursed by Medicare, and Medicare pulls the strings," said Robert Meiches, M.D., director of Senior Services at Fairview Southdale Hospital and Riverside Medical Center in Minneapolis. Meiches points out that there's little incentive for family physicians to treat older patients when they are reimbursed "about \$18" for a nursing home visit—including travel time to and from the nursing home.

**B**ut while geriatrics struggles to find its niche, not everyone agrees that elderly patients need specially trained, geriatrics-wise physicians. "There are those who would say there is no such thing as geriatrics, that it's just another form of adult health care and that the same

precepts of preventive health and comprehensive care of the family and the patient would be equal to good geriatric care," Keenan said. He tries to set the record straight by teaching physicians to respect the unique problems of their senior patients. "It's more than just good, general adult health care. There are a variety of unique syndromes that occur in the elderly. It may be the same disease that manifests differently—for example, appendicitis or pneumonia. They present quite differently in an older person than in a younger person."

Meiches believes many physicians dismiss geriatrics for the wrong reasons, particularly those who think they already know the fundamentals of treating elderly patients. Convincing doctors they can learn something by studying geriatrics is the first step. "There is sort of an attitude out there by the internist or family physician who has been practicing in the community that 'I've been taking care of older people for a long time.' My perspective is that some of those people are excellent and they know a tremendous amount, and some of them don't have the best practices."

While acknowledging that most physicians do a good job of managing pneumonia and other common senior medical problems,

Meiches says elder care usually stops short of the ideal. "The easy part in most cases is saying this is

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**"We're putting out a generation of physicians and providers who feel very uncomfortable dealing with older people."**

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the diagnosis. Then you put them on antibiotics and treat the problem." But that's not enough, Meiches argues, because the patient probably has a number of other problems that are not so easy to treat.

Even experienced physicians who treat patients in nursing homes can have poor patient care priorities, Meiches believes. "Probably the least useful thing in a nursing home is a stethoscope. Yet I see physicians in nursing homes go around listening to everybody's hearts and lungs, which is basically a worthless procedure unless there is a problem. It's a wrong emphasis. But they don't know what else to do."

Keenan adds that, "Physicians are generally well trained in what to do medically, but they will perhaps miss the problems that are





NANCY LEEGARD, HCMC

related to the person's environment—the fact that they don't have heat in their home or don't have the proper diet. Those things are just as critical to the care of an older person as the right medication and the right diagnosis."

Kane agrees that some of the nuances of treating older patients can make the biggest difference in a patient's life. "What do you do with drug dosages? What are the changes in body composition associated with aging? What are the changes in various physiological parameters that are related to aging?"

He argues that distinguishing between the effects of aging and disease is one of the greatest challenges in medicine. What may appear to be an irreversible process of deterioration caused by aging, such as memory loss, for example, may actually result from a very treatable disease.

"At one end, one would not want to treat as a disease those things that come from normal aging, because the iatrogenic consequences would be greater than the benefits. On the other hand, it would be even worse to dismiss something as aging that was, in fact, reversible by some appropriate treatment. The differential diagnosis of aging versus disease is probably one of the most subtle and challenging that doctors face. But it's also one they are most ill-prepared to make," Kane said.

**W**hat do we need to do to turn things around, to encourage more young doctors to treat older patients? "The question isn't as easy as it might sound.

NANCY LEEGARD, HC/MC



**"You now have opportunities to do something for a person psychologically or socially even when you can't do a thing about their medical disease."**

sponsored organization, is dedicated to promoting geriatric education throughout the state. It collaborates with several medical centers, the Veterans Administration Medical Center, community agencies, professional organizations, the University's Rural Physician Associate Program, and the Minnesota Primary Care Association.

MAGEC's goals, as stated in the organization's charter, are: "1) to improve geriatric instruction and research within each participating discipline, and 2) to improve the knowledge and skills of health and allied health professionals working with the elderly." Enhancing the quality of geriatrics curricula at colleges and universities throughout the Upper Midwest is the center's top priority.

Keenan, who is a MAGEC faculty "mentor," is helping spread knowledge about geriatric care to physicians practicing in greater Minnesota. "One of our forms of

outreach will be to use the University's Rural Physician Associate Program network to try to develop some specific geriatric education content that will probably be as useful to the student out there as it is to the physician," Keenan said. Although the program is still in the "drawing board" stage, a segment on geriatric assessment is an example of course content likely to be included.

Teaching geriatrics to medical students and established physicians takes a special approach, says James Pattee, M.D., an instructor who teaches geriatrics through the University of Minnesota Medical School's program in continuing medical education. As medical director of Northridge Care Center in New Hope, the state's largest nursing home, Pattee is an expert on the hands-on approach to delivering long-term health care to seniors. He teaches a unique nine-day course designed to help medical directors better understand and carry out their roles and responsibilities in the nursing home. He believes geriatrics instructors can't rely on the same pedagogical techniques that work in other areas of medicine. "Geriatric medicine is so complex that it doesn't lend itself to the didactic lecture as well as other disciplines might. Instead of lecturing on the resources in the community, you send people out into the community. Instead of telling them about a high-rise and a nursing home, you arrange for them to go to these places and interact with the people who are there and are providing services," Pattee said.

*continued*

There are lots of easy answers that are probably wrong," says Hennepin County's Irvine, who describes it as a problem of demand, not supply. "There aren't a lot of people demanding geriatric specialists. Older people don't demand to see geriatric specialists. There's a lot of question as to what the real value is. Without there being a demand, on the supply side it isn't clear at all to the younger physician what kind of a future he or she would have," he said.

The relatively low number of doctors in the field reflects these frustrations. "There are plenty of fellowships open in geriatrics," said Meiches. "There are physicians who understand the special knowledge, but they are reluctant, because they know it's not going to get them further in their careers." Figures from the American Geriatrics Society indicate that about 4,200 family practitioners and internists took the AGS certificate of added qualification test in April 1988—the first time it was offered; 56 percent passed. (More than 100,000 primary care physicians are registered with the American Board of Medical Specialties.) In Minnesota about 400 doctors took the test with comparable results.

Quality, not quantity, may be the more important criterion for assessing the health of Minnesota's training programs in geriatrics, argues Irvine. "We have enough training programs. They probably aren't as good as they should be. I think all of us could do a better job."

A number of programs are helping doctors and other health care providers do just that. The Minnesota Area Geriatric Education Center (MAGEC), a University of Minnesota-



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**"Basically, older people are reimbursed by Medicare, and Medicare pulls the strings."**

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In September, the medical school's Department of Family Practice and the Society of Teachers of Family Medicine will sponsor a two-and-one-half-day course for teachers of geriatric medicine. The course will suggest strategies for teaching geriatric medicine.

Hennepin County Medical Center has a highly regarded two-year postgraduate fellowship program to

coordinate the care of patients moving between hospitals and nursing homes. Smoothing the senior patient's transition between acute and long-term care sites is a major program goal. Continuity of care should not be left to chance, Meiches says. "When the patient leaves the hospital, the nursing home should know what we've evaluated, what our plan of care is,

navigate the health care and social service system.

The Care Source helps patients and their families understand their options and the available community resources. "There is no continuity guaranteed by the system right now. There are lots of opportunities for people to fall through the cracks, which they do with amazing frequency," said Jo Kelly, a Fairview gerontologist. "What we're trying to do is really make a much more comprehensive system out of what is currently a very fragmented system of providers." Ideally, the program will benefit physicians as well as elderly patients. "If we can take care of some of those non-medical things more efficiently through some other health professional, we may be able to take that load off the physician," Kelly said.

Fairview's response to senior patients is driven by health care needs and the market. The sheer number of elderly patients requiring care in the 1990s demands improved efficiency in delivering health care services.

Our population's changing needs also demand a new outlook among physicians, says Meiches, who believes that those who specialize in treating the elderly find their own personal rewards in the work. His interest in geriatrics began early. "I had a grandparent—sort of a patriarch from the old country—who was influential in my life. I liked him."

During Meiches' internal medicine training, he often worked in nursing homes. "I found out that you could do more to help people

teach doctors how to deliver a broad array of geriatric services, and private hospitals also are testing some new approaches to improving elder care. At Fairview Southdale, Robert Meiches has helped start a program to better

and why it's that way."

Fairview Southdale and the Ebenezer Society are collaborating on another innovative approach to health care delivery called The Care Source, a program to help senior patients and their care givers



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with a little bit of effort in geriatrics and see tremendous improvements—if you looked for them. I felt comfortable with chronic disease and issues of death and dying and the family."

There were some straightforward practical reasons for later pursuing a fellowship in geriatric medicine, he says. "To be honest, I looked at the future in a very proprietary sense and said, 'There is going to be business here,' and I asked, 'Where can I positively influence the type of health care people are going to get?' I decided this was a tremendous opportunity."

From a purely professional standpoint, geriatrics practice may best reflect the medical model of the future, Keenan says. "In some respects it's a frontier of medicine. It's an area where there is a lot of ferment, a lot of research going on. It's an exciting place to be."

Thanks to a changing philosophy and a better understanding of the aging process, physicians can help older adults live longer and healthier lives than ever before. "You now have opportunities to do something for a person psychologically or socially even when you can't do a thing about their medical disease," said Keenan, who believes that recognizing these opportunities can enhance physicians' interest in geriatrics. "It allows for a new sense of therapeutic optimism. You can feel like you really are doing something worthwhile and important for the patient. That's what we have to teach our young physicians. There are so many ways they can minister to these patients." ■

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1. Benson RC Jr.: Laser photodynamic therapy for bladder cancer. *Mayo Clinic Proc* 61:859-864, 1986.
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# The State of Minnesota's Medicine

## Results of an MMA Physician Survey

Stephen Dombrosk

**A**fter conducting a survey of rural physicians three years ago, the Minnesota Medical Association Task Force on Rural Health warned that, "A pending crisis threatens access to health care throughout rural Minnesota. All levels of government, third-party payers, health care professionals, and rural residents must join forces to avert this crisis."

A more recent survey of all Minnesota physicians, urban and rural, conducted by the MMA in December 1989 and January 1990, supports the accuracy of that prediction and makes more urgent its accompanying call to action.

In addition to reexamining the issues raised by the task force, the 1989 survey also looked at several other key issues facing physicians at the start of a new decade. Results indicate that:

- Ob/gyn and family physicians face pressures that lead many to cease providing obstetric care.
- Few physicians recover their overhead costs under Medical Assistance and Medicare, and fewer still recover their usual and customary fees.
- Most physicians participate in some program to aid low-income patients by discounting their usual fees.

This article summarizes the principal findings in each of the above areas. Further analysis of the issues explored in this study, more detailed results, and the policy implications of the data will be undertaken by the physician groups initiating the project: the MMA Task Force on Rural Health, chaired by James F. Knapp, M.D., and Raymond G. Christensen,

M.D.; the MMA Committee on Communications, chaired by Barclay M. Cram, M.D.; the Hennepin-Ramsey Joint Committee on Communications, chaired by Burton S. Schwartz, M.D., and Thomas B. Dunkel, M.D.; the MMA Committee on Legislation, chaired by Roger W. Becklund, M.D.; the MMA Task Force on the Uninsured, chaired by James J. Tiede, M.D.; and the MMA Council on Medical Practice and Planning, chaired by Anthony C. Jaspers, M.D.

### Crisis in Rural Minnesota

In the fall of 1986, 17% of physicians practicing in rural Minnesota perceived that there was a crisis in access to health care. When the same question was asked in the winter of 1989-90, 58% of rural physicians said they believe there is a crisis in access to care (Figure 1). Almost half of physicians in the rest of the state share this perception:

50% of Twin Cities metropolitan-area physicians believe there is a crisis in access to care in rural areas, and 45% of physicians in the Duluth and Rochester areas think we have reached a crisis.

A survey of hospitals conducted last fall by the Minnesota Hospital Association (MHA) and released jointly by MHA and MMA found significant physician recruitment problems among rural Minnesota hospitals, with 78% of those hospitals actively recruiting physicians. "On average, these hospitals and their local clinics have been searching for 17 months—and with very little success," said MHA spokesperson Dennis Miley, administrator of the Waseca Area Memorial Hospital.

The more recent MMA survey confirms those findings. Statewide, 71% of physicians report that their practices plan to recruit additional

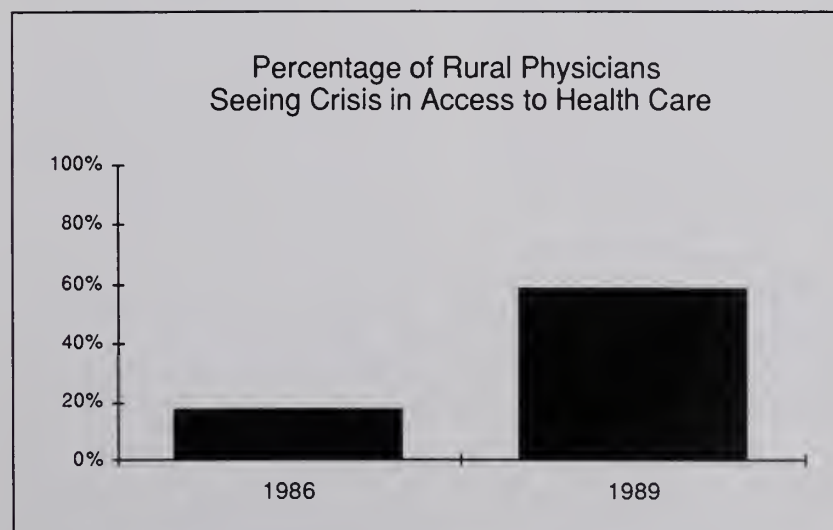


FIGURE 1



physicians, and 75% of rural physicians said they want to recruit additional practitioners. When we look at the ease with which practices are able to add medical staff, however, very significant differences arise between rural physicians and their metropolitan colleagues. Sixty percent of physicians across the state said they have experienced difficulty in recruiting physicians. But this 60% is made up of two very different components. In the Twin Cities metropolitan area and the Duluth/Rochester environs, 51% and 55% of physicians, respectively, report difficulty in recruiting. In rural Minnesota, fully 80% complain of difficulty in adding medical staff (Figure 2).

Low Medicare and Medical Assistance reimbursement rates are major obstacles to physician recruitment in rural areas. It has been widely noted that Medicare reimbursement rates for common procedures rank some rural portions of Minnesota third or fourth from the bottom out of 247 Medicare localities. Rural physicians also tend to have greater Medical Assistance caseloads, placing a heavy financial burden on those providers.

Compounding these recruitment difficulties, survey results indicate that rural physicians are less sure than their urban colleagues that they will continue to practice in their same location in the next few years. Statewide, 74% of responding physicians said it is "very likely" that they will continue to practice medicine in their geographic area beyond the next year or two. While 79% of Twin Cities metropolitan-area physicians said they are very likely to remain in practice in their geographic area, only 64% of rural physicians said they feel certain of that.

Two questions in the survey asked about particular indicators of declining access: the utilization of preventive care such as well-baby visits and physicals and evidence of patients having delayed needed treatment. In 1986, the majority of rural physicians reported no evidence that access to such care had declined. Three years later, the situation has taken a turn for the worse, with pluralities of rural phy-

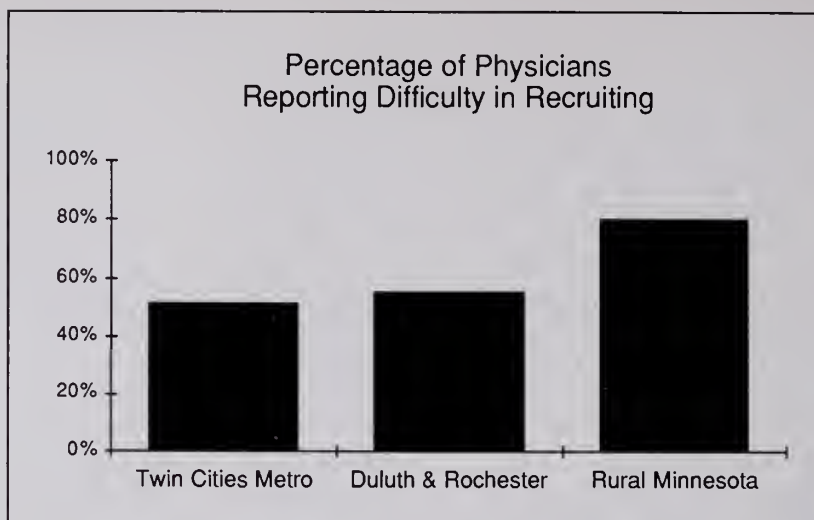


FIGURE 2

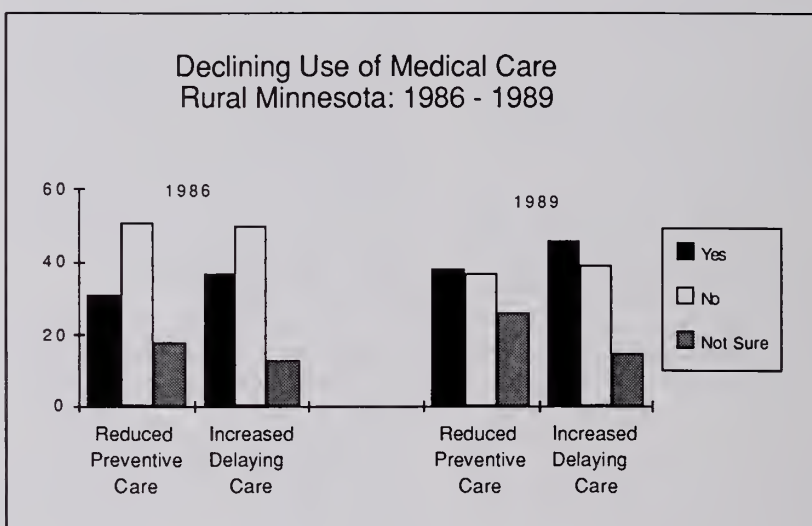


FIGURE 3

sicians now reporting more evidence of reduced access. Today, 38% of rural physicians see a decrease in the utilization of preventive care (a 7 percentage-point increase from 1986), while 46% see more evidence of patients delaying needed treatments (a 9 percentage-point increase) (Figure 3).

In 1986, 5% of rural physicians surveyed reported that their local hospitals were facing closure. This figure remains essentially unchanged in 1989 at 4%. Since 1986, eight hospitals have closed in Minnesota, five in rural areas. The next few years will reveal whether or not—as many physicians expect—this trend will continue. The percentage of

those reporting that their local hospital is facing a merger also remained fairly constant, 6% in 1986 vs. 4% in 1989. A more noticeable difference was observed in the proportion of those reporting that their local hospital may need to seek local tax support. While 14% of the respondents in 1986 said this was the case, only 7% did so in 1989. Overall, 80% of the rural physician respondents reported that their local hospitals are stable, up from 65% in 1986.

While these results imply improvement, another survey question highlighted the importance of rural hospitals. When asked, "If your local hospital were to close, would that affect your decision on where to practice?"; 48% of the

respondents statewide replied that it would not, that their decision would be based on other factors. But once again, this statewide average concealed a wide range of responses: 64% of Twin Cities physicians said their choice of practice location would be unaffected by the closing of their hospitals, 50% of Duluth- and Rochester-area physicians gave that response, and just 21% of rural physicians said their practice location would be unaffected. Forty percent of rural physicians stated that closure of their local hospitals would definitely lead them to leave their area.

Throughout Minnesota, many hospitals and clinics have chosen to consolidate into larger operations through mergers and acquisitions. Our current survey found that 31% of rural physicians have merged their practices with a larger clinic. This is a sharp increase from the 12% reporting a merger three years ago, and well above the statewide average of 20%.

### Ob Services Threatened

Statewide, 41% of physicians report that they have provided obstetric services. Of those, 12% say that they have dropped Ob care. Looking at the two medical specialties providing most obstetric services—obstetrician/gynecologists and family physicians—distinct differences are observed in their likelihood of having dropped the Ob component of their practice. (As described in the technical note following this article, a separate oversample of ob/gyn physicians was surveyed to improve the accuracy of the results for that specialty.) All ob/gyns surveyed report having provided obstetric services at some point; of those, 9% said they have dropped that part of their practice. Among family physicians, 93% report having at some point provided Ob services, with 35% having dropped that component of their practice.

Both family physicians and ob/gyns face many of the same pressures. However, family physicians' broader patient case mixes make it far easier for them to drop obstetrics and concentrate on other components of their practices.

Some physicians who continue to provide obstetric services have found it necessary to limit the Medical Assistance component of their Ob practice, the HMO component, or both. Other physicians report that they have decreased the number of deliveries they perform or decreased the level of high-risk obstetric care they provide. Just 29% of physicians who ever provided Ob services report they have not limited their practices in any way.

In 1987 the American College of Obstetricians and Gynecologists (ACOG) conducted a national survey on some of these issues. There are several significant differences between MMA's study and the ACOG survey. ACOG interviewed only ob/gyns, and its survey pool included Canada. Additionally, that survey was focused more narrowly on issues relating to professional liability. Despite these distinctions, the results show comparable percentages of ob/gyns dropping Ob care altogether—12% nationally in 1987 and 9% in Minnesota in 1989 (Table 1).

When asked what forces led them to alter their practice styles, the Ob providers in the main sample who have made some changes in their practices gave most weight to the cost of professional liability insurance (3.4 on a scale ranging from 1 to 5). Ob/gyns surveyed, including the oversample, cited low reimbursement from Medicaid (3.8) and low reimbursement from pre-paid plans (3.5) as particularly strong factors.

Following up on the impact of professional liability insurance premiums, the survey asked "How large a factor is the cost of professional liability tail (exit) coverage in your deci-

sion regarding your obstetrical practice?" Ten percent of those responding said that it was one of the reasons they were still providing Ob services; 3% indicated that it was the primary reason they were still providing Ob care.

### Reimbursement Problems Cited

Minnesota physicians report being unable to cover either their fees or their overhead expenses under Medicare and Medical Assistance programs.

**Medical Assistance:** Under Medical Assistance, 26% of respondents report being able to cover their overhead expenses, while only 6% report being able to cover their usual and customary fees.

Office visits and physician services were most often identified (by 28% of physicians) as representing the greatest shortfall under Medical Assistance. Ob services ranked third at 11%, followed by surgery at 9%. Other items identified by more than one percent of the respondents as under-compensated include lab tests (7%), emergency care (3%), hospital care (3%), and long-term care such as nursing home care (2%). Six percent of respondents said all procedures are under-compensated.

Rural physicians are harder hit by these low reimbursement rates by virtue of their greater percentage of MA patients. Statewide, physicians' median MA caseload is 10%. This figure ranges from a low of 5% in the Twin Cities metropolitan area up to 15% in rural Minnesota.

Statewide, 52% of physicians report an increase in the proportion of their patients covered by Medical Assistance, with 16%

TABLE 1

Percentage of ob/gyn physicians making indicated changes in practice\*

|   | National<br>1987 | Minnesota<br>1989 |
|---|------------------|-------------------|
| Decreased gynecological surgical procedures       | 9%               | 4%                |
| No longer do major gynecological surgery          | 3                | 4                 |
| Decreased the number of deliveries                | 13               | 10                |
| Decreased the level of high-risk obstetrical care | 27               | 13                |
| No longer practice obstetrics                     | 12               | 9                 |
| Have made no changes in my personal practice      | 56               | 62                |

\*Multiple responses result in percentages totalling over 100%.



labeling it a large increase. Family physicians were most likely to see an increase (60%), while internists were least likely to report an increase (42%).

Rural physicians were more likely to report an increase in the percentage of their patients covered by Medical Assistance; 78% reported such an increase, with 26% describing it as a sharp increase. These findings show an acceleration of a trend noted in 1986, when 68% of rural physicians indicated a rising percentage of MA patients, and 25% labeled it a major increase.

**Medicare:** Physicians report marginally more adequate reimbursement through Medicare, with 51% stating that they are at least able to cover their practice overhead. Just 22%, however, are also able to cover their professional fees.

Services cited as particularly under-reimbursed include office visits and general physician services (26%), lab tests (7%), and surgery (6%). Six percent of respondents reported that all services are inadequately compensated. Other services described as under-reimbursed by one percent or more of the respondents were hospital care (3%), emergency care (2%), X-ray (2%), and long-term care (1%).

Physicians are also encountering more patients who are unable to pay their bills. Sixty-one percent of rural physicians report an increase in the percentage of uncollectible patient bills in their practices over the last three years, with 17% describing it as a large increase. These figures show some moderation compared with three years ago, when 73% perceived an increase in uncollectible bills, and 33% labeled it as a large increase.

Despite this change, however, only 3% of rural physicians see an absolute decline in the size of the problem of uncollectible patient bills. This indicates that the rate and extent of increase are moderating, but the problem remains. Forty-two percent of physicians in the Twin Cities metropolitan area and 35% in the Duluth and Rochester areas report increases in uncollectible bills.

## Uninsured

**Basic health insurance:** Related to the issue of Medical Assistance and Medicare is the problem of the uninsured, a problem increasingly in the news and in the minds of public policy-makers. Looking at Minnesota as a whole, 47% of physicians report no increase in the percentage of their patients lacking basic health insurance, with 30% indicating such an increase and the remainder unsure.

In rural Minnesota the picture is reversed; 40% of rural physicians report that they do see an increase in the number of patients lacking basic health insurance, while 31% do not.

**Aid to Low-Income Patients:** Minnesota physicians report taking a variety of steps to provide services to their low-income patients. These methods fell into two basic categories: providing services at a reduced rate through Medicare and Medical Assistance, and providing more direct forms of charity care including volunteer work at a community clinic or hospital or providing services at a discount or free of charge. Physicians were asked to quantify the value of such contributions, and their estimates showed a significant monthly dollar contribution, as shown in Table 2.

## Hospital Requirements

Sixty-one percent of respondents said their hospitals have mandatory physician committees or functions

in which their participation is a condition of their staff privileges. Such arrangements are far more common in rural Minnesota, where 77% of physicians report such requirements. Just 43% of physicians in the Rochester and Duluth areas report mandatory service requirements, while 56% of Twin Cities physicians face these policies.

Eighty percent of physicians facing these requirements report that they must participate in quality assurance programs; 77% are required to assist in utilization review; and 55% have general administrative duties. Most hospitals do not reimburse for these functions. In those that do, the compensation most often ranges from \$40 to \$60 an hour.

## Goals for Future Changes

The question "If you could change two or three things about the overall environment in which you practice medicine, what would those changes be?" elicited a wide range of responses. The most common response reflected physician frustration with third-party interference in the practice of medicine, previously documented in a 1987 MMA survey on competitive pressures in medicine (*Minnesota Medicine*, January 1988). In second place was a desire for solutions to tort reform and professional liability issues. Third was a concern about the amount of paperwork and "red tape" associated with medical practice today.

TABLE 2

Percentage of physicians supplying indicated service for low-income patients with median estimated dollar value

| Services   | Percent Offering Service | Median Estimated Monthly Dollar Value |
|--|--------------------------|---------------------------------------|
| Services at a reduced fee that patient pays directly | 33%                      | \$275                                 |
| Services rendered for no charge                      | 42                       | 500                                   |
| A reduced fee through Medical Assistance             | 43                       | 2,000                                 |
| A reduced fee through Medicare                       | 42                       | 2,300                                 |
| Community clinic volunteer/reduced fee services      | 9                        | 100                                   |
| Hospital volunteer/reduced fee services              | 6                        | 200                                   |

TABLE 3

Percentage of physicians desiring indicated changes in overall practice environment

|                                       |       |   |       |
|---------------------------------------|-------|---|-------|
| Less third-party influence/fewer HMOs | 18.2% | More physician control/cooperation        | 4.9%  |
| Tort reform/malpractice issues        | 17.0% | Improve recruiting/more MDs               | 4.9%  |
| Less paperwork/red tape               | 13.7% | More time off/family/continuing education | 4.7%  |
| Medicare reimbursement/equity         | 12.7% | HMO/third-party reimbursement             | 4.5%  |
| Reimbursement issues (general)        | 12.0% | Universal health insurance                | 3.2%  |
| Medicaid reimbursement/reform         | 10.9% | Rural reimbursement                       | 2.6%  |
| More patient orientation/access       | 9.4%  | Better QA/more peer review                | 2.4%  |
| Less govt. interference/PRO/BME       | 9.2%  | Control costs/technology                  | 2.1%  |
| Cognitive services reimbursement      | 7.7%  | No changes desired                        | 0.9%  |
| Less interference (general)           | 6.7%  | Others                                    | 22.1% |

Many other responses focused on reimbursement issues, particularly Medicaid and Medicare. The full listing of response categories is provided in Table 3.

It is perhaps not surprising that the option selected least often was "No changes desired." The results reveal physicians under pressure on a variety of fronts and facing increasing obstacles to practicing their profession.

*Stephen Dombrosk is director of Management Information Services at the Minnesota Medical Association. He has worked with the survey research firm of Peter D. Hart Research Associates and at the American Hospital Associa-*

*tion. He is the author of Seasonal Patterns of Hospital Activity and articles on hospital closures and other issues.*

**Technical Note:** This survey was conducted by mail in December 1989 and January 1990. A random sample of 1,240 practicing Minnesota physicians was selected, stratified to ensure accurate distribution by region and specialty. To allow separate analysis of ob/gyns, an oversample of 132 of those practitioners was also contacted. The oversample was never introduced into the larger sample. Physicians were contacted by letter prior to the questionnaire mailing, and one follow-up postcard was mailed to stimulate response.

A total of 510 questionnaires were returned from the main sample for an overall response rate of 41%. A screening question at the beginning of the questionnaire eliminated responses from 44 physicians who were not currently providing patient care, resulting in a total of 466 valid responses for the main sample. From the 132 physicians contacted for the ob/gyn oversample, 47 responses were obtained, yielding a total of 80 ob/gyn respondents, including those in the main sample.

The Minnesota Medical Association thanks those physicians who took time out of their busy schedules to complete this survey and invites all physicians to take a more active role in these issues by participating in organized medicine.



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# Minnesota OSHA Infectious Agent Requirements

*Linda Malm, R.N., M.I.S.; David L. Parker, M.D., M.P.H.; Darrell Anderson, CIH, PE, M.S.; and Julie Leppink, J.D.*

In 1970, Congress passed the Occupational Safety and Health Act (OSHAct) to "... assure so far as possible every working man and woman in the nation safe and healthful working conditions."<sup>1</sup> Under OSHAct, the U.S. Department of Labor was authorized to develop and enforce mandatory job safety and health standards, and the Occupational Safety and Health Administration (OSHA) was created to carry out this mission.

OSHA employs occupational safety and health investigators to ensure that safety and health standards are followed. The investigation of a workplace by an OSHA investigator occurs because of multiple serious injuries, employee complaints, high accident or illness rates among workers in a particular industry, and referrals from health or safety professionals. OSHA includes in its scope all employers with one or more employees and extends to all worksites where the employee performs work duties.<sup>1</sup> Thus, all public and private clinics, hospitals, doctors' and dentists' offices, and all other health-related workplaces with at least one employee must comply with OSHA requirements. The Minnesota OSHA Division is empowered to issue citations and assess penalties. Exceptions to coverage include employees, such as miners, who are covered by federal agencies; establishments where the owner is the only employee; and some government workers.

Federal regulations require that individual states either develop their own occupational safety and health programs or allow federal OSHA to operate in that state.

States that have their own OSHA programs, as does Minnesota, are required either to adopt federal standards or develop standards at least as stringent as federal standards.

## Federal Standards

As of December 1989, federal OSHA did not have a specific standard regulating workplace exposures to infectious agents; however, it has issued a directive entitled, "Enforcement Procedures for Occupational Exposure to Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV),"<sup>2</sup> which requires OSHA compliance officers to issue citations (using the General Duty Clause<sup>3</sup> and other existing OSHA standards<sup>4</sup>) in situations where work practices, protective equipment, and worker training are not being provided to protect workers against exposure to HBV and HIV. OSHA used the Centers for Disease Control (CDC) universal precautions for preventing Hepatitis B and AIDS<sup>5,6,7</sup> as the source of recommended work practices in developing its directive.

Federal OSHA also is developing a standard on bloodborne pathogens.<sup>8</sup> Public hearings on this proposed standard were held through January 1990. A final standard will be published after the public hearings are concluded, comments are received and incorporated, and revisions are approved.

## Minnesota Standards

At present, Minnesota OSHA is enforcing work practices pertaining to bloodborne pathogens according to the federal OSHA directive.<sup>2</sup> After

final publication of the federal standard, Minnesota OSHA will have six months to determine whether to adopt the Federal Bloodborne Pathogen Standard or develop a standard of its own. Normal procedure is to adopt the new federal standard if Minnesota has not yet developed its own standard.

In addition, under the Minnesota Employee Right-to-Know Standards,<sup>9</sup> Minnesota OSHA has specific training requirements pertaining to exposure to infectious agents. Minnesota developed these standards instead of adopting the Federal Hazard Communication Standard.<sup>10</sup> The employee right-to-know standard requires training on hazardous chemical substances, physical agents (such as noise, heat stress, and radiation), and infectious agents. The Federal Hazard Communication Standard requires training only on hazardous chemical substances.

## OSHA's Directive on Work Practices

Federal OSHA requires Minnesota OSHA compliance officers to enforce work practices recommended by the CDC,<sup>5,6,7,11</sup> for protection of worker safety and health where exposures to bloodborne pathogens such as HBV and HIV may occur. The work practices recommended by CDC are based on the concept of "universal precautions." Universal precautions are defined as "a system of infectious disease controls which assumes that every direct contact with body fluids is infectious and requires every employee exposed to direct contact with body fluids to be protected as though such body fluids were HBV or HIV infected. The



body fluids to which universal precautions apply are: blood, semen, blood products, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, amniotic fluid, and concentrated HIV or HBV."<sup>5</sup>

To assure employee infectious agent protection, an OSHA investigator will review the employer's infection control program. Five basic elements of the infection control program will be reviewed:

**1. Exposure determination:** OSHA requires an identification of workers at risk of exposure to body fluids and the job tasks that present the risk of exposure. This assessment includes employees involved in both routine and emergency procedures.

**2. Infection control plan:** The employer is required to identify and implement appropriate work practices that will minimize exposure risk for both routine and emergency procedures. This includes the identification of spe-

cific tasks where personal protective equipment such as gloves, masks, goggles, or gowns are needed; the provision and maintenance of protective equipment; and the appropriate disposal or reprocessing of contaminated materials. Recapping of needles by hand is specifically prohibited. Contaminated materials need to be bagged (double bagging is required where leakage through the first bag may occur), and bags are to be labeled or coded if they contain potentially infectious material. The OSHA directive<sup>2</sup> requires disposal of infectious waste in accordance with state regulations. As of January 1990, the Minnesota Department of Health is writing specific rules for infectious waste generators,<sup>12</sup> and the Minnesota Pollution Control Agency has proposed specific rules regarding the transportation, storage, and disposal of infectious and pathological wastes.

**3. Medical surveillance:** OSHA requires written procedures for the assessment and follow-up of any

worker who has had a body fluid exposure (i.e., puncture wound, non-intact skin, mucous membrane). Current CDC guidelines call for an immediate determination of the HBV and HIV antigen status for both the source patient (if consent is given) and the exposed worker and follow-up testing for HIV at six weeks, 12 weeks, and six months if initial test results are seronegative.<sup>11</sup> Appropriate prophylaxis (e.g., immunoglobulin) should also be given if available.

**4. Medical prophylaxis:** Minnesota requires that the hepatitis vaccine be made available to any worker whose job involves tasks where exposure to blood or body fluids may occur and to which universal precautions apply. This requirement is one aspect of the employer's general duty to provide work conditions free from recognized hazards.

**5. Communication of hazards to the employee:** Employers are required to establish a training program and to train each worker

#### Brief summary of OSHA requirements regarding infectious agents

| Requirement   | Description  | Reference  |
|---|--|--|
| Right-to-know training for employees                    | <ol style="list-style-type: none"> <li>1. Training regarding infectious agents on initial assignment</li> <li>2. Yearly updated training</li> <li>3. Availability of written materials regarding infectious agents</li> </ol>  | <ol style="list-style-type: none"> <li>1. Minnesota Statutes §182.51</li> <li>2. Minnesota Rules Part 5206 et seq.</li> <li>3. Federal/CDC Requirements</li> </ol>   |
| Personal protective equipment* and workplace procedures | <ol style="list-style-type: none"> <li>1. Employer must provide personal protective equipment such as gloves, gowns, masks, and goggles where needed</li> <li>2. No recapping of needles by hand</li> <li>3. Proper disposal of infectious and contaminated waste</li> <li>4. Written procedures for follow-up for exposed employees</li> <li>5. Hepatitis vaccine made available when exposure may occur</li> </ol> | <ol style="list-style-type: none"> <li>1-3. Federal/CDC Requirements OSHA Instruction CPL 2-2.44A</li> <li>4. CDC Guidelines</li> <li>5. Minnesota Statute §182.653, Subd. 2, General Duty Clause</li> </ol> |
| Reporting and record keeping                            | <ol style="list-style-type: none"> <li>1. Logs and summaries of employee illness and injury</li> <li>2. Records accessible to OSHA, Health Department, and employee.</li> </ol>  | <ol style="list-style-type: none"> <li>1-2. Minnesota Rules Parts 5210.0600-.0760</li> </ol>   |

\*There are other specific OSHA requirements regarding protective equipment and procedures. Employers should carefully review all OSHA standards.

prior to his or her working in areas where exposure may occur. This training includes the epidemiology, modes of transmission, methods of prevention (including recommended immunizations), possible risk to a fetus, the use and location of personal protective equipment, proper work practices, and the methods used in the facility to identify contaminated articles and infectious waste. Workers also need to be trained in the procedures to follow if exposed to needle sticks or to body fluids.

### Minnesota Right-to-Know Rules

The Minnesota Employee Right-to-Know rules<sup>9</sup> require that, upon assignment to a job that presents a risk of occupational exposure to infectious agents, employees: 1) receive training similar to that described above for any infectious agent to which they may routinely be exposed (including HIV and HBV), 2) receive updated training annually, and 3) have access to written materials regarding infectious agents that may be present. Existing certification, in-service, or hospital licensure programs may substantially comply with the Right-to-Know requirements.<sup>9,12</sup> "Occupational exposure" and "routine employee exposure" mean reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials while performing work duties. Minnesota also has requirements for a written right-to-know program that includes:

- a description of how the train-

ing, availability of information, and labeling requirements will be met;

- a list of the hazardous substances, chemicals, infectious agents, infectious agent categories, and physical agents that are present or potentially present in the workplace;

- the methods the employer will use to inform workers of the hazards of infrequent tasks and the hazards associated with unlabeled pipes; and

- the methods the employer will use to inform any contractor who has employees working at a site of hazardous substances (and physical or infectious agents).

Training records should include the dates training was conducted, the name and title of the person who conducted the training, the names of the employees who completed the training, and a brief summary or outline of the information that was included in the training session. There are limited exceptions to the training requirements for certain research situations.<sup>12</sup> Employers also have an obligation to maintain logs and summaries of employees' occupational illnesses and injuries, including the consequences of exposure to an infectious agent. These records are to be available to OSHA, the Minnesota Department of Health, and employees.<sup>13</sup>

The OSHA regulations presented here are separate from the Infectious Waste Control Act (IWCA) passed by the Minnesota Legislature in 1989.<sup>14</sup> The IWCA regulates waste handling from generation to

disposal for all generators of infectious waste. It covers any person who generates, treats, stores, transports, or disposes of infectious or pathological waste. Households, farms, and agricultural establishments are exempt. A generator is defined as a person whose activities produce infectious waste (e.g., laboratory waste, blood, animal by-products). The Administrative Rules currently being written will attempt to conform to existing OSHA requirements in areas where overlapping requirements exist.

*Further information about Minnesota OSHA health requirements can be obtained by writing the Minnesota Department of Health, Occupational Health Section, 717 Delaware Street SE, Minneapolis, Minnesota 55440, or by calling (612) 623-5372. Minnesota OSHA safety requirement information can be obtained from the Minnesota Department of Labor and Industry, 443 Lafayette Road, St. Paul, Minnesota 55155, or by phone (612) 296-4017. For information on the Minnesota Infectious Waste Control Act, call (612) 623-5758.*

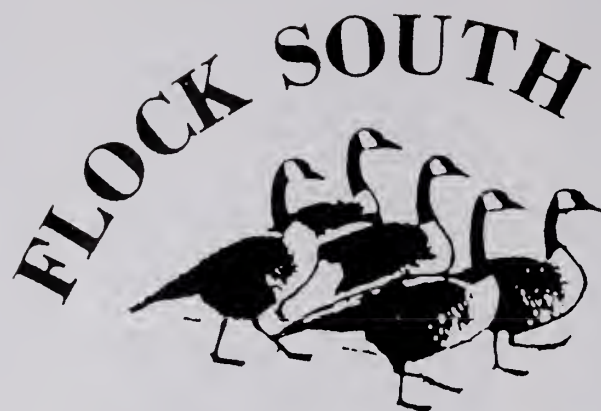
*Linda Malm and Darrell Anderson are with the Minnesota OSHA Program, Minnesota Department of Health. David Parker is with the Division of Disease Prevention and Control, Minnesota Department of Health and the Division of Business and Occupational Health, Park-Nicollet Medical Center. Julie Leppink is a special assistant attorney general who is counsel to the Minnesota OSHA program.*

*Reprint requests: David L. Parker, M.D., M.P.H., Minnesota Department of Health, 717 Delaware Street SE, Minneapolis, Minnesota 55440.*

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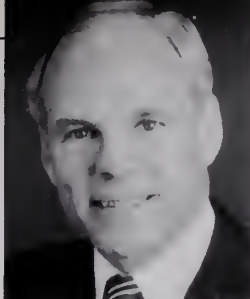




# MMA ANNUAL MEETING

MAY 16-17-18, 1990





ROBERT D. CHRISTENSEN, M.D.

## PRESIDENT'S LETTER

# Are We Equipped for the Elderly Boom?

**W**ith the number of Americans over 65 growing three times faster than the general population, the medical profession will soon feel the weight and see the symptoms of a markedly older society. Are we prepared to treat the burgeoning elderly population?

The elderly require more care than the general population. A 1987 report in the *New England Journal of Medicine* estimated that those over 65—12 percent of the American population—account for 33 percent of physicians' time, 40 percent of acute hospital admissions, and 25 percent of medications. In the future, most of our time will be spent serving the elderly.

With these older patients, it will be important to distinguish between disease and the normal consequences of aging. Growing old doesn't necessarily foster illness. Most people are able to lead healthy, productive lives well into their 70s. But people's bodies change with age, and we need to adapt treatment to some of the elderly patients' special needs. Normal physiological loss may not even be noticeable in the patient's daily life, but it may affect the way we prescribe medications. A gradual decline in function of the kidneys, for example, is a normal, usually asymptomatic, consequence of aging. It may, however, require lower dosages of drugs processed by the kidneys.

Some diseases increase in frequency with age but are not a necessary result of aging. Incontinence, for example, affects five to 15 percent of those over 65. If left

untreated, this malady can cut the sufferer off from a normal social life. Fortunately, incontinence usually can be cured.

The prevalence of Alzheimer's disease also increases with age, affecting two to three percent of those over 65 and 20 percent of those over 80. One of its early symptoms, forgetfulness, is sometimes considered inevitable in the elderly and left untreated. But forgetfulness can be

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**"Although the rewards may not be as tangible and clear-cut, helping the elderly remain independent is a real contribution to a patient's quality of life."**

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caused by depression as well as by the incurable disease of Alzheimer's. If depression is recognized, the patient often can be restored to normal functioning.

Special expertise is usually needed to treat those over the age of 80 or 85. By the year 2000, twice as many people will be over 85. Will we be prepared to meet their special needs? Statistics are not encouraging.

We aren't attracting nearly enough physicians to care for our rapidly aging population. An article in the University of Minnesota's fall 1988 issue of *Health Sciences* estimated that while we need between 1,000 and 2,000 geriatric physicians, only about 100 physicians complete geriatric fellowships each year.

Why aren't physicians eager to learn about a specialty that will be

vital in the 21st century? In our youth-oriented culture, geriatrics is not a particularly glamorous specialty. The traditional biomedical practice is straightforward and satisfying. We diagnose an illness, prescribe a treatment, and effect a cure. That's a clear win. But in geriatrics, we must often be content with smaller victories that enhance life for our patients. In treating the very elderly and chronically ill, the goal is not necessarily to cure them but often to increase their healthy years of life. Although the rewards may not be as tangible and clear-cut, helping the elderly remain independent is a real contribution to a patient's quality of life.

There are reasons besides the glamour gap why physicians are reluctant to choose geriatrics as a specialty. Medicare reimbursement levels discourage physicians from treating seniors. When the RBRVS takes effect, we hope to see more equitable Medicare reimbursement in Minnesota and more incentive for physicians to treat the elderly.

The future may look gray, but it's certainly not black. *Minnesota Medicine's* feature story this month highlights some of the ways Minnesota serves as a leader in long-term care for the elderly. The Minnesota Area Geriatric Education Center (MAGEC), sponsored by the University of Minnesota, is promoting geriatric education throughout the state. The medical school's Department of Family Practice and the Society of Teachers of Family Medicine will sponsor a two-and-one-half day course this fall for teachers of geriatric medicine. Hennepin

President's Letter to page 44



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**Kane** from page 8

aging. *You must run up against such barriers frequently.*

**KANE:** Americans don't like to face the fact that we're getting very old very fast, so we close our minds. We have a history of closing our minds to social groups we don't want to deal with. In the past, we would send the mentally ill to the country, where they'd be happier—and farther away from us. We've done the same thing with criminals and people with tuberculosis, and we've done the same with the elderly, particularly the frail elderly.

We tend to confuse aging with decrepitude or frailty. In fact, not all old people are frail and not all frail people are old. We're really talking about the interface between aging and frailty. The "frail elderly" probably make up 15 to 20 percent of the total elderly population.

## Long-term Nursing Home Care

**REECE:** *What constitutes "long-term care" and "nursing homes"?*

**KANE:** Those are two vague and paradoxical terms. "Long-term care" is everything that is left over after you've done the acute care. Yet nobody quite knows when acute care stops and when long-term care begins. This creates problems. One is the implication that long-term care and short-term care are separate and distinct. In fact, someone can be in long-term care and still need acute care services. Indeed, primary care services don't stop just because you're suddenly in long-term care. Long-term care implies care of people who never acquired or who have lost for a sustained period of time the capacity for independent functioning. Usually, and arbitrarily, one would have to be in that situation for about three to six months to be considered a long-term care recipient.

Ironically, while we talk about "long-term care," we actually look at it in little snapshots. Rather than looking at the movie, we look at very short episodes. Consequently, we fail to recognize that much of

the philosophy underlying long-term care and its potential effectiveness is tied to investing effort. Unless you have a long-term perspective to go along with long-term care, you're never going to see the big picture or the long-term benefits of the care.

The nursing home is an interesting piece of American history. Its roots go back to a combination of the English alms house and the American boarding house. In the middle 1930s, those two concepts

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**"Americans don't like to face the fact that we're getting very old very fast, so we close our minds."**

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began to come together as a result of federal legislation. A new industry was created to handle an aging population of people who had lost their families.

This whole effort was catalyzed dramatically in 1965 with the passage of Medicare and Medicaid. Medicaid developed a funding mechanism to support these institutions. For the first time, the government imposed rules and regulations governing nursing homes. In retrospect, one of the great tragedies was that those rules and regulations were written to make nursing homes look like miniature hospitals. If you go back to 1965, Medicare, an acute care law, described a role for an institution called an extended care facility. The idea was to extend hospital care at a lower cost to allow patients to recuperate.

That program never got off the ground for two reasons. First, there was no real incentive for hospitals to reduce utilization, because they were being paid for their costs. Second, most of the facilities available in 1965 weren't sufficiently equipped to qualify for certification under Medicare.

As a result, we had to invent a whole new class of nursing homes called intermediate care facilities, which were essentially those that couldn't pass the first tier of inspection. So the nursing home doesn't have auspicious beginnings. Even

now the medical profession largely ignores long-term care.

**REECE:** *And yet long-term care is a \$50 billion industry.*

**KANE:** It is the fastest growing segment of our health care economy.

**REECE:** *Why has long-term care been neglected by the medical industry?*

**KANE:** For several reasons. Anything that grows out of the history of the alms houses is not highly prestigious. Long-term care has never been associated with the cutting edge. It is a low-technology industry in a medical profession that increasingly worships at the shrine of technology. Nursing homes have traditionally been viewed as unattractive, inconvenient places that pay very poorly.

## Changing Our Preconceptions

**REECE:** *How do we change the way we think about nursing homes? How do we create a positive mind-set?*

**KANE:** We need a system of care that supports people and allows them to function as independently as possible for as long as possible. If we can't cure them, we would at least like to slow the rate of their deterioration. We would like to offer that care in an environment that is as pleasant as feasible, although there will always be restrictions imposed by any kind of institutional living.

We have to examine our fundamental values. We need an environment that allows people to exercise their own sense of person with privacy and dignity and encourages them to maintain their autonomy. We want to individualize the care as much as possible.

To do these things, we have to go back to the basic premise of the nursing home. We want to start by making it a much more home-based program. We must think of nursing home care as home care. That will require some combination of housing with care. We would begin by giving people a modest amount of space, a space they can control themselves for as



long as they are able. Then we would bring in individualized packages of care that can wax and wane as the situation requires but that encourage these people to do as much as possible for themselves.

This means we have to look at the major messages we're sending out today. Our society's penchant for avoiding risk stands directly in the way of fostering independence. Most of our policies and regulations in this country are made to avoid catastrophes. We regulate nursing homes to make sure people aren't destroyed in fires or other catastrophes.

The fact that we have endemic neglect at a much more subtle level reflects our fascination with catastrophes. We are mesmerized by airplane crashes, but we ignore huge numbers of fatalities on the highway every day. Because traffic deaths happen so commonly, they're not news. Similarly, the fact that people may be getting far less than optimal care in nursing homes isn't newsworthy until someone dies in a fire.

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## **Independence Means Risk-taking**

**REECE:** *Maybe we worry more about fires because the American style is to regulate and then to litigate. We regulate to avoid litigation.*

**KANE:** America is the most rule-bound society in the world. We have a desperate need in our country to make things explicit. So in nursing homes, we have rampant regulation. We then add to the confusion by spending more and more public money to support private provision of care—care that more often than not is proprietary. When you combine public dollars with private provision, you're going to get a lot of regulations.

Because we are a nation of entrepreneurs, we respond to the regulations with counterstrategies. The first counterstrategy is to litigate. We have a land of wealthy lawyers as a result of the regulation, litigation, countersuit cycle.

The next counterstrategy is to find ways to maximize the benefit from the regulations or to minimize the discomfort that the regulations impose. We seek loopholes around regulations. Regulators often go to work for the proprietary sector to find ways to undo the very regulations they worked hard to pass in the first place. The result is a matrix-enmeshed system that traps the people who are trying to do a good job.

**REECE:** *So we create a Byzantine bureaucracy with so many entrenched interests. The consequence is organizational fibrillation.*

**KANE:** That's an apt way to describe it.

We need to get people to become more comfortable making decisions about trading off autonomy for safety. How are they going to exercise control of their own lives, if they don't occasionally risk falling down, breaking a bone, or getting confused? That's what life is about. We need to create an environment that allows people to take that risk. But the risks must be understood. People deserve the right to take risks. We shouldn't penalize people

charged with their care for encouraging that kind of autonomy.

What has evolved in many states is something quite different. Several states, including Minnesota, have adopted a case-mix system that, if anything, encourages people to get worse. The people who designed the system were trying to find a way to get more care and more dollars appropriated to the people who needed more care, but the resulting case-mix payment system has led to a terrible paradox: The more care you need—the worse you get, in essence—the more you get paid. This is exactly

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**"Our society's penchant for avoiding risk stands directly in the way of fostering independence."**

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the opposite of the message you'd like to send out.

**REECE:** *So we don't encourage autonomy in the elderly?*

**KANE:** We don't encourage autonomy within or without the nursing home. Families can be even more risk-averse than regulators.

**REECE:** *The stereotype is that nursing homes are warehouses for the old dependent. But they're not—many nursing home residents are capable of functioning independently and of going home.*

**KANE:** We have the frail elderly who are chronically dependent, and many of whom are seriously impaired, but we have another group of people who are using nursing homes as extended care facilities, as a stop on the way home.

About a third of the people in nursing homes are discharged into the community, another third go back into the hospital, and about a third die in the nursing home. A substantial proportion of the first two groups returns to the nursing home at some point—sometimes days later and sometimes weeks or months later. Because we record people's lives as little snapshots each time they come and go, we get a very distorted picture of what

is really going on, and that contributes to some of the stereotypes we have about nursing home care.

## Nursing Home Accountability

**REECE:** *You're a big proponent of nursing home accountability. You want to implement information systems that measure outcome so we can give the nursing homes the right incentives. Could you explain your philosophy on using outcome measures in nursing homes?*

**KANE:** We need a system that allows care givers wide latitude within a system of accountability. The way to do that is to look at the outcomes of care, where the outcome is expressed as a ratio of what happens to what is reasonably expected, that is, it uses statistical norms based on empirical data. These data would include such measures as physical, social, and psychological functioning, as well as rates of hospitalization, death, and discharge to the community. We would use this observed-to-expected ratio as a basis for looking at outcomes.

We would weight the various outcomes according to what we value to form an aggregate score. To what extent do we value people dying in metabolic balance as opposed to people functioning independently? Is it more important to avoid a broken bone than it is to allow people to get up and take some risks to become more independent? Those values are reflected in the way we weight the various outcomes for different groups of patients. The dialogue we would have over those outcomes may be one of the most important things we do in long-term care, because that process will force us to confront what we want from the system.

Currently, there is really no tracking of patient outcome. We have difficulty recruiting personnel because of frustration. The health care workers see people deteriorate, and they have no way of knowing whether or not they're making a difference. A simple form that indicates the expected course of the patient and the patient's

course after receiving care could show the benefit of their care. That approach could make caring for nursing home patients much more rewarding.

**REECE:** *So nursing homes are operating in an information vacuum? Nursing home personnel have no way of knowing whether they're making a difference.*

**KANE:** Exactly. I believe nursing homes would profit enormously from a structured information system that provides a mechanical supervisory function for the people on the firing lines. It's not hard to imagine a system that would allow people to enter data that would then tell them what to do next for many management problems.

**REECE:** *Have you studied such systems?*

**KANE:** We actually created such a system as early as the 1970s. We have also developed those systems now in computer form, and we have begun a series of studies to test whether it is possible to predict the outcomes of nursing home patients. What we haven't done and

would love to do is to take a group of nursing homes, let them operate under such a system, and give them monetary rewards for producing better outcomes. We need to find a state that's willing to undertake that kind of experiment.

## Wanted: Docs for the Elderly

**REECE:** *And how do you get the medical profession interested in these information systems? Indeed, how are we going to get doctors committed to geriatrics?*

**KANE:** The field of long-term care has to change dramatically. We need new combinations of housing and home care that will allow individualized treatment. In these new environments, we need a new breed of physicians who see themselves as primary care providers. Physicians have to realize they're not the only care givers on the block anymore. Other people who are well equipped to provide good primary care are going to be eager to take up that challenge.

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rate or group practice of medicine is also affecting long-term care. Prepaid care is ideally suited to geriatric practice.

**REECE:** *Why is a group practice ideal for geriatric care?*

**KANE:** Prepaid group practice provides the setting to practice the investment strategy that underlies geriatrics. We need to be able to expand efforts in assessment and care in the expectation of recouping the benefits in improved function and cost savings later. In a sense, group practice provides physicians with a much higher degree of freedom to do what they think is right rather than what is billable. However, in the Twin Cities, where we've had more experience than anyone else with group practice coverage of older patients under Medicare, we have not seen a very dramatic growth of geriatrics. I've been disappointed that most medical groups haven't embraced geriatrics, although some have flirted with it.

**REECE:** *Have you seen any concerted effort by group practices to pioneer this field?*

**KANE:** We've seen some short-lived attempts to try to hire a geriatrician or two, but if it's going to fly in group practice, we need to change the style of primary care. Simply hiring a geriatrician won't do. We must shift the way we organize care. We must spend the time and effort necessary to head off some of the costly medical problems common later in life. We haven't seen that kind of innovation, although we've seen some interesting things. Group Health is in a partnership with the Ebenezer Society to form the Seniors Plus program, the social HMO in town. MedCenters has made an effort to develop a more geriatric thrust. But we haven't been able to mobilize that kind of effort on a broad scale. I don't know enough of the details to tell you why these things didn't work, but I remain convinced that group practice is where the future of geriatrics lies.

We have a great opportunity here in Minnesota to demonstrate what is possible in delivering care

to the frail elderly. We are fortunate to have a number of skilled geriatricians in the community and a group of long-term care providers

who are prepared and able to do things better. I have high hopes that we can realize this potential. ■

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## Editor's Notebook from page 7

### The Wish for Another Day

On more than one occasion I have heard John Najarian, M.D., head of surgery at the University of Minnesota and a world-class transplant surgeon, say that he's never met a patient who didn't want to live another day. Most of us want that extra day, no matter how old we are or how infirm we might be. Not only do we demand to live longer, but we have the technology to fulfill our wish.

### This Issue's Interviews

In this issue of *Minnesota Medicine*, two Minnesota experts on aging discuss their views on how to handle our aging population humanely and efficiently. Both advocate low-tech care with attention to the quality of living. But their approaches differ.

► Robert Kane, M.D., dean of the School of Public Health at the University of Minnesota and holder of Minnesota's first chair in long-term

care and aging, believes nursing home conditions ought to simulate life in the home as closely as possible. Furthermore, he says we ought to encourage nursing home owners and managers to take as many risks as necessary to assure that their residents are self-sufficient and independent in their daily lives. The key in assuring quality care is an information system that tracks patients' conditions and gives the care givers some measure of improvement or outcome.

► Daphne Krause, founder of Minneapolis Age and Opportunity, is a staunch proponent of setting up a network of community services that helps older people remain in their homes. This care, she has demonstrated, can be delivered through existing community health care organizations, agencies, volunteers, and friends. But she says nothing can replace medical specialists when you need them. ■

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## President's Letter from page 39

County Medical Center offers a post-graduate fellowship program in geriatric services. In addition, the standard medical school curriculum is changing to respond to the growing importance of geriatrics. Opportunities to learn about the special needs of the very old are increasing for both Minnesota physicians and medical students.

A multi-disciplinary approach may keep us from being overwhelmed by the needs of an increasing number of elderly

patients. This month's feature story also describes an innovative approach to geriatrics at Fairview Southdale Hospital that focuses on the total needs of the elderly patient and involves nurses, social workers, physical therapists, and dietitians as well as physicians.

Geriatrics is becoming increasingly vital. Caring for the elderly requires compassion and an awareness of our patients' personal needs; it offers rewards well worth the challenge. ■

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## MMA ABORTION STANCE

The MMA Board of Trustees in January approved support for the new American Medical Association position on abortion. At its 1989 Interim Meeting in December, the AMA adopted the position that: "The early termination of pregnancy is a medical matter between the patient and the physician, subject to the physician's clinical judgment, the patient's informed consent, and the availability of appropriate facilities."

In addition, the AMA reaffirmed existing policy that: 1) Abortion is a medical procedure and should be performed only by a licensed physician according to standards of good medical practice and the laws of the state; 2) No physician or other professional personnel shall be required to perform an act that violates good medical judgment or personal moral principles; 3) The AMA opposes legislative proposals to use federal or state health care funding mechanisms to deny established and accepted medical care to any segment of the population.

The MMA stressed that it takes no position on the philosophical, ethical, moral, or religious issues surrounding abortion.

## CIGARETTE BAN

The MMA Board of Trustees at its January 20 meeting called for a total ban on cigarette sales from vending machines and on the sale of tobacco to anyone under the age of 21.

Because addiction to nicotine often begins during the teen years, the MMA has targeted teen-age smokers. The MMA is urging a total ban on vending machines and will reject any compromise that would exempt machines in bars or in areas where they can be easily supervised. Research shows that children have been able to purchase cigarettes from vending machines in full view of adults.

In Minnesota, approximately \$86 million in taxes are collected each year from the sale of tobacco. The price tag for treating smoking-related illness in Minnesota is approximately \$710 million each year.

Shortly after the MMA's announcement, the Bloomington City Council voted to ban cigarette vending machines, becoming the nation's largest city to enact such a ban. White Bear Lake was the nation's first city to ban the machines.

## NURSING HOME DEATHS

Ruth Stryker-Gordon, professor emeritus of Long Term Care Administration at the University of Minnesota, has been selected to chair a new state task force on nursing home deaths.

The newly formed Nursing Home Mortality Review Task Force will examine the problem of nursing home deaths in the state and the possible role of neglect or abuse in those deaths. Stryker-Gordon is one of 15 members appointed to the task force by Minnesota Commissioner of Health Sister Mary Madonna Ashton. The task force was formed in response to increased reports of patient deaths, allegedly involving neglect or abuse, in Minnesota nursing homes.

## MEDICARE PATIENT MANAGEMENT

United HealthCare Corporation of Minneapolis announced that Arthur Andersen, a leading provider of professional services to the health care industry, will assist in the development and delivery of its Geriatric Care Management System. According to United HealthCare, this new program is designed to help hospitals improve

financially by identifying high-risk, high-cost Medicare patients upon admission and providing focused care management throughout their hospital stays.

## INSURANCE FOR THE ELITE ELDERLY

Because of high cost, insurance for nursing home care is out of reach for those who need it most, according to a report released in January by Families USA, a non-profit foundation advocate for the elderly poor. Five of six (3.6 million of the 22 million) Americans 65 years old or older cannot afford private insurance to cover nursing home costs, the study found. The situation is even worse for widows or widowers and the oldest patients—those who typically are in most need of nursing home care. The study reported that the average annual cost for insurance is \$1,255 for a 65 year old—up from \$684 in 1988—and \$3,860 for a 79 year old.

## MOUNT SINAI SALE

The former Mount Sinai Hospital building was sold to Minneapolis public schools in January for \$2.25 million. The city plans to convert the building into an elementary school.



## SHARE ADJUSTS RATES

Share Health Plan, one of the Twin City area's smallest HMOs, announced that it will no longer charge its members the same flat rate regardless of their gender or age. Effective April 1 it will—as do other HMOs—charge older members more than younger ones and women, except those in their early 60s, more than men. Its new rates for older individual members will be the highest in the Twin Cities. Only men under 45 will benefit from the new rates.

## MEDCENTERS APPEAL

The Minnesota Court of Appeals ruled in January that Minnesota Health Commissioner Mary Madonna Ashton acted within her authority when she ordered MedCenters Health Plan not to pay the 18 percent increase to Park Nicollet Medical Center that an arbitration panel had awarded.

The rate debate began after Park Nicollet, which provides care for most of MedCenters' members, proposed a 21 percent rate increase. MedCenters offered a 13 percent increase. After the arbitrator ruled on the 18 percent increase and a district court judge and the state appeals court upheld that decision, Ashton stopped the increase from going into effect.

The debate then went to an administrative law judge, who deemed the 18 percent too high because Park Nicollet was providing unnecessary services—which was the decision upheld in January.

## 'DRUG BABIES'

Babies born with the effects of their mothers' drug use

may be allowed to go home with their parents, but the parents must agree to periodic checks on the baby's health and to treatment of their own drug problems, according to an experimental Hennepin County program. County Attorney Tom Johnson announced at the MMA/Minnesota Hospital Association "Born Addicted?" seminar in January that the experimental program, called protective supervision, is designed to protect babies from further abuse while keeping the families together.

The program stems from a new state law enacted last August that requires physicians to test mothers they suspect are drug users and, if the tests are positive, to report their findings to child protection agencies. Recent data indicate that between 250 and 400 drug-exposed babies are born in Hennepin County each year.

## HIV TESTING

Hennepin County commissioners in January approved a contract with the state to continue testing for the human immunodeficiency virus (HIV) at the Red Door Clinic in Minneapolis, despite concern from an AIDS activist group. Members of the AIDS Coalition to Unleash Power (ACT UP) challenged the contract because the state requires the county—in order to avoid duplication when tracking the virus—to ask people's names when they seek testing. ACT UP said the contract puts too much pressure on people to supply their names. The commission ruled that the contract allows sufficient option for those seeking

testing to remain anonymous, but has ordered posters made to clarify that option.

## 'U' TRANSPLANT PROGRAM

The University of Minnesota's heart and lung transplant programs are thriving, Robert Nickoloff, chairman of the University Hospital Board of Governors reported to the university's Board of Regents in January. University surgeons performed nine heart/lung transplants in 1989, up from three in 1988; six single lung transplants (only one had been done before 1989); and 21 heart transplants, the same as in 1988.

## ABBOTT/MHI TRANSPLANT PROGRAM

The heart transplant program operated jointly by the Minneapolis Heart Institute and Abbott Northwestern Hospital in Minneapolis has met the guidelines necessary to qualify for Medicare certification. The Health Care Financing Administration (HCFA) notified program officials after several months of extensive review of the program's performance.

HCFA's approval makes the Abbott Northwestern/Minneapolis Heart Institute heart transplant program only the second Medicare-approved program in the Upper Midwest five-state region; the University of Minnesota's program is also Medicare certified. Of the 147 institutions in the U.S. that perform heart transplants, 35 are Medicare certified.

## PHOTODYNAMIC THERAPY

For the first time in Minnesota, physicians at Abbott Northwestern Hospital in January used PhotoDynamic Therapy (PDT) to treat a cancer patient. PDT exposes tissue treated with the drug Photofrin II to light, causing a series of chemical reactions that selectively destroys cancer cells.

The drug is absorbed and retained predominantly by malignant cells, and an argon tunable dye laser activates the drug.

"The laser makes the treatment possible because it produces a very controlled light at a specific wavelength that can be aimed precisely through a fiber optic tube directly onto the tumor," said Leonard Schultz, M.D. "This laser light does not harm normal tissue. It is the drug's reaction to the light that destroys the cancer cells." Schultz, a general surgeon, is the research coordinator for the Minneapolis hospital's PDT program.

## FETAL DEATH LAW

In a split decision in January, the Minnesota Supreme Court upheld the state's fetal homicide laws as constitutional. The laws provide that a defendant may be tried for murder for killing a fetus, regardless of its ability to survive outside the womb. The court ruled that the laws only require that "the genetically human embryo be a living organism that is growing into a human being. Death occurs when the embryo is no longer living, when it ceases to have the properties of life."

The laws exclude abortion.

## SORRY STATE OF CHILD WELFARE

Although Minnesota was rated among the top four states for its efforts to improve children's welfare, its efforts only merited a "D" by the Children's Defense Fund (CDF) of Washington, D.C. In its report card of all 50 states, CDF based its grades on 10 indicators of progress toward improving children's well-being and 10 indicators of state investments in children.

Vermont received a "C" and the highest score of all the states. Its score of 65 meant that it received positive scores in 65 percent of the 20 categories. Maine, with 60 points, also received a "C." Minnesota and Massachusetts, with 55 points, and Connecticut and Delaware, with 50, were given "Ds." All other states received "Fs," and the average score for all states was 32.

According to CDF, Minnesota made adequate progress in reducing infant mortality, reducing low-weight births, reducing the teen birth rate (best in the nation), and in improving high school graduation rates (best in the nation), Medicaid coverage for babies and pregnant women, Medicaid coverage of poor children, nutritional assistance for mothers and children, support for early childhood education, child care quality, child support collection efforts, and youth employment programs.

CDF deemed Minnesota inadequate in early prenatal care, births to unmarried women, establishment of paternity, percentage of children living in poverty, housing affordability, youth unemployment, benefits under Aid

to Families with Dependent Children (AFDC) compared with inflation, rents vs. AFDC benefits, and student-teacher ratio.

## FAMILY DOCS' PAY

Family physicians working in a partnership earned on average \$73,500 in 1988, compared with \$57,700 for family physicians on salary or working independently, according to a study released in January by the Hennepin County Academy of Family Physicians. The survey of clinics in Minneapolis and its suburbs showed the average clinic's income for family physicians in partnerships ranged from \$35,700 to \$120,000 per doctor, and for family doctors working independently or on salary, average income ranged from \$30,000 to \$102,000.

The study also determined that, on average, family physicians in 1988 worked 47 weeks, saw 104 patients a week, and spent 31.3 hours a week seeing office patients and 9.2 hours a week with hospital patients.

## WORKERS' COMP BILLS

In preliminary findings released in January, the state Labor and Industry Department said that health care costs for Minnesotans covered by workers' compensation are twice as high as those covered by other medical insurance. Department commissioner Ken Peterson said, "I'm not in a position to say that the medical community is ripping off the workers' compensation system. There may be good reasons for the disparity." The study was expected to be completed in February.

# YOCON® YOHIMBINE HCl

**Description:** Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubiaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

**Action:** Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

**Indications:** Yocon® is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

**Contraindications:** Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

**Warning:** Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

**Adverse Reactions:** Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.<sup>1,2</sup> Also dizziness, headache, skin flushing reported when used orally.<sup>1,3</sup>

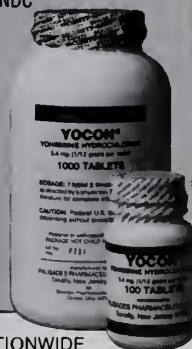
**Dosage and Administration:** Experimental dosage reported in treatment of erectile impotence.<sup>1,3,4</sup> 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.<sup>3</sup>

**How Supplied:** Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

### References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85

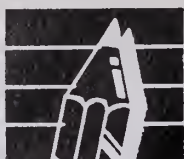


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## CALENDAR OF MEDICAL EVENTS

**March 31, 1990**

**Third Annual  
JOHN I. COE SYMPOSIUM  
"Current Issues in Cytology"**  
Michael Stanley, MD, Chairman  
Hennepin County Medical Center  
Minneapolis

**April 2-6, 1990**

**AMERICAN COLLEGE OF PHYSICIANS (ACP)  
MEDICAL KNOWLEDGE SELF ASSESSMENT  
PROGRAM (MKSAP) VIII**  
Roland Ingram, Jr., MD, Chairman  
Michael Belzer, MD, Vice Chairman  
Hennepin County Medical Center  
Minneapolis

**April 5, 1990**

**MINNESOTA REGIONAL SLEEP DISORDERS  
CENTER (MRSDC) DINNER LECTURE  
"Panic Disorders - Awake & Asleep"**  
Guest Speaker: Thomas Uhde, MD, Bethesda, Maryland  
Mark Mahowald, MD, Chairman  
Normandy Inn  
Minneapolis

**April 6, 1990**

**DISASTER AND HAZARDOUS  
MATERIAL MANAGEMENT  
CONFERENCE**  
Brian Mahoney, MD, Chairman  
Radisson South Hotel  
Bloomington

**April 20, 1990**

**Third Annual  
GI CONFERENCE**  
Co-Sponsored with St. Paul Ramsey Medical Center  
Martin Freeman, MD, Co-Chairman  
Robert Olson, MD, Co-Chairman  
Earle Brown Conference Center  
St. Paul

**May 10, 1990**

**RESEARCH AT HCMC  
"Fourth Annual Poster Session"**  
William Keane, MD  
Hennepin County Medical Center  
Minneapolis



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## Provided through the MMA Medical Education Subcommittee on CME Resources

For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

## MARCH 1990

**5-9 Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

**7-9 Annual Critical Care Medicine Conference** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

**12-14 Partners in Managing Type II Diabetes** International Diabetes Center; International Diabetes Center, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

**15-16 Family Practice Today** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

**16-17 Lasers in Gynecology: An Advanced Seminar** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Cathy Elmstrom, CME Office, 14202, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

**19-23 Problem-oriented Case Studies in Surgical Pathology** Mayo Medical Laboratories; Palm Springs, California. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, Minnesota 55905; (800) 562-1787.

**23 11th Annual Occupational Medicine Update** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

**26-30 Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

## APRIL 1990

**5-6 Annual Obstetrics and Gynecology Update** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

**6 ENT Update** St. Paul-Ramsey Medical Center; St. Joseph's Hospital, St. Paul, Minnesota. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, Minnesota 55101; (612) 221-3977.

**6 Sixth Annual Duluth Heart Conference** The Duluth Clinic/St. Mary's Medical Center; Fitger's Spirit of the North Theater, Duluth, Minnesota. CONTACT: James Brueggemann, M.D., 400 East Third Street, Duluth, Minnesota 55805; (218) 722-8364.

**6-7 13th Annual Update in Clinical Cardiology** Abbott Northwestern Hospital; Radisson Plaza, Minneapolis, Minnesota. CONTACT: Tim Schuh, CME Office, 14202, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

**8-14 Laboratory Diagnosis of Fungal Infections** Mayo Medical Laboratories; The Empress Hotel, Victoria, British Columbia. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, Minnesota 55905; (800) 562-1787.

**9-13 Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

**13-27 The Danube River** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, Minnesota 55116.

**20-21 Cutaneous Laser Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Cathy Elmstrom, 14202, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

**23-27 Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, Minnesota. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3393.

**26 Lasers in General Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Cathy Elmstrom, 14202, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

**27-28 Laser Laparoscopic Cholecystectomy** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Cathy Elmstrom, 14202, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.



**27-28** 15th Annual Spring Seminar—Minnesota Academy of Physician Assistants Minnesota Academy of Physician Assistants; Holiday Inn-Town Square, St. Paul, Minnesota. CONTACT: John O'Brien, 2103 Cohansey Boulevard, Roseville, Minnesota 55113; (612) 487-1374.

## MAY 1990

**9-11** Marketing and Selling your Hospital Laboratory Mayo Medical Laboratories; Mayo Clinic, Rochester, Minnesota. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, Minnesota 55905; (800) 562-1787.

**11-13** Bowie Symposium on Von Willebrand's Disease Mayo Clinic; Mayo Clinic, Rochester, Minnesota. CONTACT: William Nichols, M.D., Hematology Research, Mayo Clinic, Rochester, Minnesota 55905; (507) 284-5978.

**15-28** Western Mediterranean Air/Sea Cruise North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, Minnesota 55116.

**16-18** Current Concepts in Radiation Therapy University of Minnesota CME; Mayo Memorial Auditorium, Minneapolis, Minnesota. CONTACT: Continuing Medical Education, University of Minnesota, Box 202, 420 Delaware Street SE, Minneapolis, Minnesota 55455; (612) 626-5525.

**18-19** Laser Angioplasty Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, Minnesota. CONTACT: Cathy Elmstrom, CME Office, 14202, 800 East 28th Street, Minneapolis, Minnesota 55407; (612) 863-5461.

## MINNESOTA/WISCONSIN

Ramsey Clinic, a 215 physician multi-specialty group operates a network of several branch clinics that extends from the Minneapolis/St. Paul metropolitan area to small communities in Minnesota and Wisconsin. Family physicians practicing in the branches enjoy the many advantages of membership in a large group practice and the atmosphere of a private practice clinic. For particulars on these expanding practices, contact Lories A. Stoll, Director of Professional Services, Ramsey Clinic, Jackson at University, St. Paul, MN 55101-2595; (612) 221-3067.

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**February 21**  
**CPR Recertification for Physicians –**  
Metropolitan-Mount Sinai Medical Center,  
Phillips Campus, Heilicher Auditorium,  
6:00 p.m.

**March 8**  
"Common Ortho Problems" presented  
by Nolan Segal, M.D. – Sioux Valley  
Hospital, New Ulm, 12:00 noon

**March 9-10**  
**North Region Primary Care Update,**  
Riverwood Conference Center, Monticello

**March 21**  
**Advanced Cardiac Life Support (ACLS)**  
– Sioux Valley Hospital New Ulm

**March 28**  
**Advanced Cardiac Life Support (ACLS)**  
– Sioux Valley Hospital New Ulm

**May 2**  
**Second Annual Rheumatology Update –**  
Metropolitan-Mount Sinai Medical Center,  
Orthopaedic Learning Center, 4:00 p.m.-  
9:00 p.m.

For further information, contact the  
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**Family Physician** needed to join group of five family physicians in St. Peter, Minnesota, population 9,000, located one hour south of Minneapolis. Contact: Curt Stolee, M.D., or D.A. Nygard, Administrator, St. Peter Clinic, Ltd., 622 Sunrise Drive, St. Peter, Minnesota 56082; (507) 931-2110. (R)

**Bemidji, Minnesota:** Excellent opportunities for well-trained physicians. We are seeking board-certified/board-eligible physicians in orthopedic surgery, family practice, ophthalmology, pediatrics, and otolaryngology to join a young 24-physician multispecialty group practice located in northern Minnesota. Competitive salary guarantee plus incentive first year and excellent benefits. An excellent opportunity for a physician to enjoy practice in the center of hunting, fishing, and clear air. Please respond with CV to: C.C. Lowery, Administrator, Bemidji Clinic-MeritCare, 1233 34th Street NW, Bemidji, Minnesota 56601; (218) 751-1280. (R)

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**Psychiatrist:** An opening exists for a general psychiatrist with Hennepin Faculty Associates. Salary and benefits are generous. Requirements are board eligibility, Minnesota licensure, and potential for appointment in the Department of Psychiatry at the University of Minnesota. Position involves mainly inpatient and some outpatient care of acutely ill patients. This would be in association with over a dozen other full-time psychiatrists engaged in clinical care, teaching, research, and forensics. The University of Minnesota and Hennepin County Medical Center are equal opportunity educators and employers and specifically invite and encourage applications from women and minorities. Contact: William W. Jepson, M.D., Chief of Psychiatry, Hennepin County Medical Center, 701 Park Avenue South, Minneapolis, Minnesota 55415; (612) 347-5764. (R)

**St. Cloud—** Minnesota's fastest growing city—family practice physician, two pediatricians, two ob/gyns, BE/BC to join supportive primary care staff in a growing, successful, and innovative prepaid practice. New clinic facility. Full range of fringe benefits (competitive salary, liberal vacation, two weeks' education leave, retirement fund, etc.). Contact: Physician Services, Central Minnesota Group Health Plan, 1245 15th Street North, St. Cloud, Minnesota 56303; (612) 253-5220. An equal opportunity employer. (R)

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**Immediate Opportunity for Internist or Family Practitioner** in north-suburban area. Three primary care physicians in well-established practice. Competitive base salary plus incentive pay. Location next to Brookdale Shopping Center. Excellent benefits, which include pension, profit sharing, and malpractice insurance. Contact: Duane Orn, M.D., Northport Medical Center, 5415 Brooklyn Boulevard, Brooklyn Center, Minnesota 55429; (612) 533-8666. (9/89-R)

**Olmsted Medical Group** is currently seeking board certified/board eligible physicians in the following specialties: OB/GYN, EMERGENCY MEDICINE, INTERNAL MEDICINE, RADIOLOGY, GENERAL SURGERY, AND NEUROLOGY. This is an excellent opportunity for well-trained physicians to join a 50-physician multispecialty group in an established, progressive practice. In addition to the recently expanded main office located in Rochester, Minnesota, the Olmsted Medical Group operates eight branch offices in southeastern Minnesota. The affiliate hospital recently underwent a complete renovation and expansion project. Olmsted Medical Group offers a competitive salary and comprehensive benefit package including malpractice insurance, flexible benefits plan, 401K, and profit sharing. Send CV to: Olmsted Medical Group, Attn: Susan Schuett, 210 Ninth Street SE, Rochester, Minnesota 55904. 3-3/90

**Georgia:** Family practice, internal medicine, oncology, endocrinology, neurosurgery, neurology, general surgery, and orthopedic surgery. Group practice, solo, or urgent care settings available through the Charter hospital network located in Macon and serving all of middle Georgia. Your practice will be located 80 miles south of Atlanta, in a growing family-oriented community, where you can avoid traffic and enjoy a rewarding professional career. Please contact: Steve Wofford, (912) 741-6283, for a confidential consultation, or write: Charter Northside Hospital, PO Box 4627, Macon, Georgia 31208. 6-3/90

**Locum Tenens** physicians needed. Physicians and locations coordinating services. Write to: Margaret Carse, MED Professional Resource Search, PO Box 35215, Minneapolis, Minnesota 55435. (10/89-R)

**Wholesale Life Insurance—** No front load and no surrender charge. Example: 45-year-old ns male, \$500,000. First-year premium—\$4,000. First-year guaranteed cash value—\$3,526. Offered by Ameritas Life Insurance Corp., a hundred-year-old Best's rated A+ (superior) company. For further information contact: Greybull Insurance Services, 1313 5th Street SE, Minneapolis, Minnesota 55414; (612) 379-3860. (\*10/89-R)

**Radiologist:** A three-physician radiology group is seeking a fourth radiologist with experience and interest in interventional radiology. Dickinson County Hospitals is a progressive, 126-bed, two-hospital system located in Iron Mountain, Michigan's Upper Peninsula. We have a service-area population of over 45,000. Contact and/or send resume to: Drs. Specht/Shampo/Manzano, Radiology Department, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, Michigan 49801; (906) 779-4565. 2-3/90

**Family Practice:** Physicians seeking a BE/BC family practice physician for the Norway, Michigan, service area. The physician would have the option of joining one of the existing practices and/or setting up his/her own practice. Anderson Memorial Hospital is a part of Dickinson County Hospitals and has a service-area population of over 45,000. Contact: Dr. Paul Hayes, Anderson Memorial Hospital, Main Street, Norway, Michigan 49870; (906) 563-9243, or office (906) 563-9255. 2-3/90

**Family Physician or Internist:** Busy family practice/industrial practice located on the beautiful North Shore of Lake Superior. Outdoor activities abound: hiking, skiing—xc and downhill—fishing, etc. Two-physician practice is looking for a third physician for a rewarding practice. VA nursing home is a near future reality. Contact: Jon Ward, Manager, Silver Bay Clinic, Ltd., Silver Bay, Minnesota 55614; (218) 226-4431. (12/89-R)

**Eugene, Oregon—Internist, BC/BE** to join well-established 35-physician primary care group. Excellent schools. Abundant cultural and recreational opportunities. Near Cascade Mountains and coast. Home of University of Oregon. Please send CV to: Phil Taggart, M.D., Oregon Medical Group, 495 Oakway Road, Eugene, Oregon 97401; or call (503) 683-5808. 3-3/90

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**General Medicine:** Position available with Cancer Detection Center at University of Minnesota. Clinic focus is on health risk screening and assessment. Hourly wage. Part-time flexible hours. No weekends. No call. Current Minnesota license required. For more information, call/write: Dr. Donald E. Stewart, Director, Box 99, University of Minnesota Hospital, Minneapolis, Minnesota 55455; (612) 625-6970. 3-3/90

**BC/BE Family Physician, Internist** needed to join multispecialty group with emphasis on primary care. Scenic location with excellent school system, supportive medical community with strong local hospital, competitive salary, and benefits. Send CV to: Jane Wilkens, M.D., St. Croix Valley Clinic, 921 South Greeley Street, Stillwater, Minnesota 55082; (612) 439-2215. 3-3/90

**Des Moines, Iowa:** Multispecialty P.C. has immediate need for BC/BE physicians in the following specialties: family/general practice, oncology, dermatology, internal medicine, and ob/gyn. Initial financial package with start-up assistance, coverage, and free lease space is available. Located in metro area of 400,000; great schools, diverse cultural activities, college/professional sports. Interested physicians reply to: Minnesota Medicine (838), 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414. \*3-3/90

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**Orthopedic Surgeon:** A progressive, 126-bed, two-hospital system is seeking an orthopedic surgeon to join an established practice in the Iron Mountain area of Michigan's Upper Peninsula. Must be BE/BC. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Dr. Roberts will guarantee \$250,000 plus malpractice insurance, office space, CME, vacation, and relocation expenses. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, Michigan 49801; (906) 779-4500. \*2-4/90

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**BC/BE Family Physician:** Full-time or part-time. Progressive community clinic, competitive salary and benefits, no ob, no call. Contact: Gordon Lester, M.D., West Side Health Center (La Clinica), 153 Concord Street, St. Paul, Minnesota 55107; (612) 222-1816. 2-4/90

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**Worthington Medical Center, P.A.**  
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**Family Practitioner** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, Wisconsin 54022; (715) 425-6701 or (612) 436-8809. (\*3/90-R)

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**Family Physician, BC/BE** wanted to join three board-certified MDs in well-established, expanding group practice. Enjoy a progressive, rural city within easy reach of St. Cloud and Minneapolis. Contact: Dr. Jim Mohs, Melrose Clinic, 603 West Main Street, Melrose, Minnesota 56352; office: (612) 256-4228, home: (612) 256-3488. (R)

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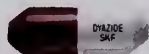
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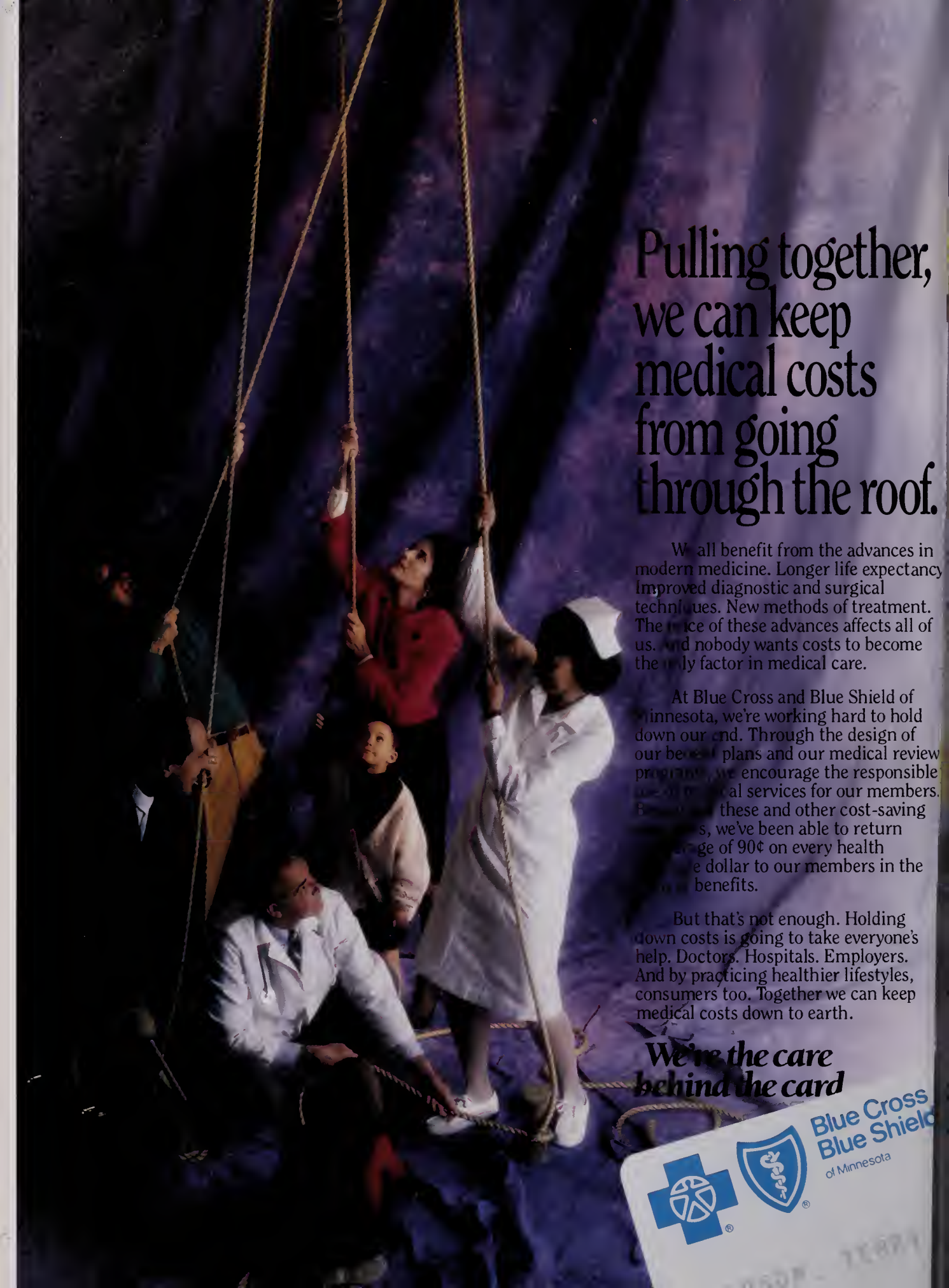
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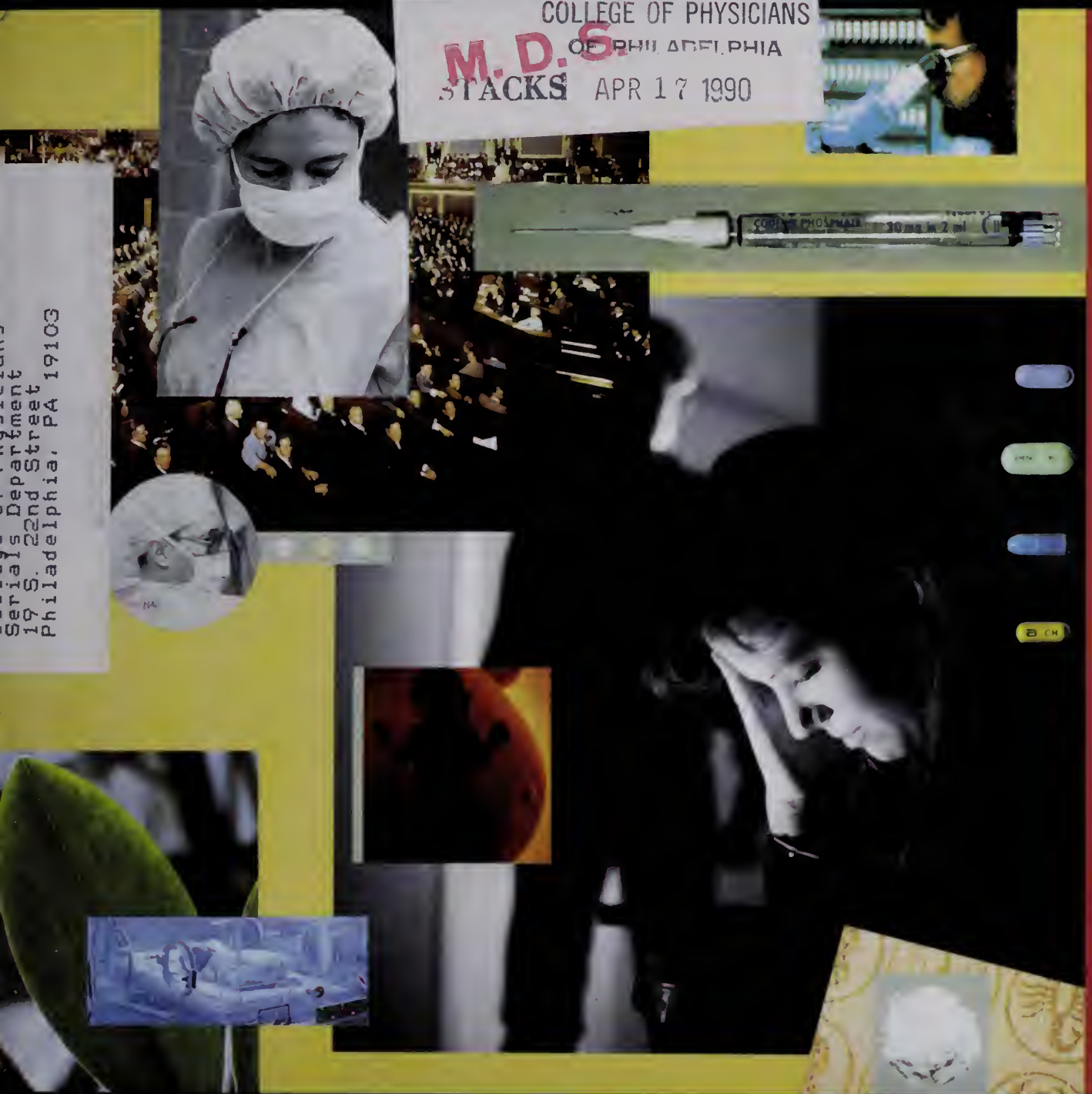
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# Minnesota Medicine

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## PREGNANCY & DRUGS

A R 99



# "Fifty Percent Of All Patients With A Diagnosis Of Cancer, Are Now Being Cured."



*Gail Bender, M.D.  
Oncologist*

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If you would like to discuss the cancer care team concept or the program at Methodist, contact me through Cancer HelpLine, 932-5700.

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For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

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# VASOTEC®

## (ENALAPRIL MALEATE | MSD)

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

**Contraindications:** VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

**Warnings:** *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

*Hypotension:* Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed, caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hypotension, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

*Neutropenia/Agranulocytosis:* Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

**Precautions:** *General:* Impaired Renal Function: As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

**Evaluation of patients with hypertension or heart failure should always include assessment of renal function.** (See DOSAGE AND ADMINISTRATION.)

*Hyperkalemia:* Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

*Surgery/Anesthesia:* In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

#### Information for Patients

*Angioedema:* Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

*Hypotension:* Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

*Hyperkalemia:* Patients should be told not to use salt substitutes containing potassium without consulting their physician.

*Neutropenia:* Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

**NOTE:** As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

#### Drug Interactions

*Hypotension: Patients on Diuretic Therapy:* Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

*Agents Causing Renin Release:* The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

*Other Cardiovascular Agents:* VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methylglucoside, nitrate, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

*Agents Increasing Serum Potassium:* VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

*Lithium:* Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

**Pregnancy—Category C:** There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters. There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not

been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome: inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably resulting from decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

*Nursing Mothers:* Milk in lactating rats contains radioactivity following administration of <sup>14</sup>C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

*Pediatric Use:* Safety and effectiveness in children have not been established.

**Adverse Reactions:** VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

**HYPERTENSION:** The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), cough (1.4%), orthostatic effects (1.2%), and asthenia (1.1%).

**HEART FAILURE:** The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

**Cardiovascular:** Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension); pulmonary embolism and infarction; pulmonary edema; rhythm disturbances, atrial fibrillation, palpitation.

**Digestive:** Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

**Musculoskeletal:** Muscle cramps.

**Nervous/Psychiatric:** Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

**Urogenital:** Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

**Respiratory:** Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

**Skin:** Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

**Special Senses:** Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgia/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

*Angioedema:* Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

*Hypotension:* In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

#### Clinical Laboratory Test Findings

**Serum Electrolytes:** Hyperkalemia (see PRECAUTIONS), hyponatremia.

**Creatinine, Blood Urea Nitrogen:** In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

**Hemoglobin and Hematocrit:** Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

**Other (Causal Relationship Unknown):** In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

**Liver Function Tests:** Elevations of liver enzymes and/or serum bilirubin have occurred.

**Dosage and Administration:** *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed. If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

**Dosage Adjustment in Hypertensive Patients with Renal Impairment:** The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

**Heart Failure:** VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg. The maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

**Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia:** In patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L) or with serum creatinine > 1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19380. J9V561R2(819)

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# Minnesota Medicine

A JOURNAL OF CLINICAL AND HEALTH AFFAIRS



## COVER

*Drug Use During Pregnancy* has made headlines with stories of "cocaine babies," and increasing crack use. In response to this problem, a new Minnesota law requires physicians to test for and report pregnant women suspected of using illegal drugs. This month we examine some of the strengths and weaknesses of the new law and how it affects physicians.

Cover art by Susan Serstock, a Minneapolis graphic designer.

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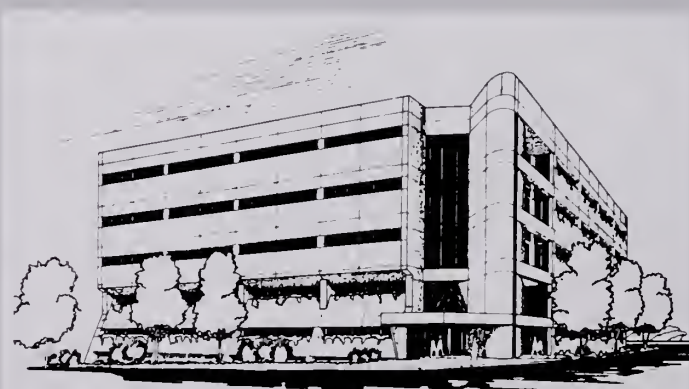
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## MMA Receives NWNL Insurance Distribution

The Minnesota Medical Association (MMA) received a cash distribution from Northwestern National Life Insurance Company (NWNL) March 1, 1989, when the insurance company converted from a combined mutual and stock life insurance company to a total stock life insurance company. The MMA holds three separate NWNL group policies—a major medical policy, a hospital indemnity policy, and a group life policy—that MMA members may select for insurance coverage.

Actuaries concluded that the entire NWNL distribution received by the MMA was attributable to its group life policy. About 35 percent was attributable to payments made by the insureds (the excess of premiums paid by insureds over claims paid by the company), and the balance was attributable to other factors.

Legal counsel advised that if the

MMA distributed any portion of the funds to the insureds in the absence of a legal obligation to do so, it would risk losing its tax-exempt status. Since insureds do not have a contractual or statutory entitlement to any portion of the refund, distribution would put the MMA at risk.

The MMA could not appropriately allocate refunds, an independent actuarial firm concluded, because data were inadequate to determine individual payments. For example, if the 35 percent of allowable payments were returned to the insured, refunds to individuals would range from \$18 to \$520, with an average refund of \$255. Most likely, these refunds would also be taxable income to the recipients. The cost for the MMA to determine individual refund amounts was estimated at \$30,000. Because of the high cost, the relatively small individual refunds, the speculative nature of the calculation,

the absence of a legal obligation to make any refund, and the risk of adverse tax consequences, the MMA has chosen not to distribute refunds.

Instead, on September 30, 1989, the MMA Board of Trustees approved a proposal to hold the distribution in a separate MMA investment account and to use the earnings "to provide contributions and grants for the benefit of the medical profession consistent with MMA's tax exempt purposes." It was also recommended that the MMA Committee on Administration and Finance develop an investment policy and a contribution policy for the fund. The MMA is implementing both recommendations. If you have questions about these policies, please contact Steve Carter, MMA chief executive officer, at the Minnesota Medical Association, 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414; 612/378-1875.



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# The Rise and Fall of Medical Specialists?

Richard L. Reece, M.D.

**“W**e predict that the enactment of the new Medicare RBRVS system marks the beginning of a national debate over the role of specialists in medicine. The overspecialization of medicine is probably the underlying cause of the explosion of ‘outpatient costs,’ and the explosion in the supply of specialists in the U.S. is largely dollar driven. We believe that the oversupply of specialists causes harm to patients, does not contribute to advances in medicine, and is a harmful side-effect of the 1960’s-era health insurance system [emphasis mine]. News media and the public have overlooked this viewpoint, concentrating on ‘break-throughs’ and wonder cures paid for by their health plans. But as specialist charges hit the stratosphere, the story could well change as the news media examine the ‘specialist glut.’”

William Boyles, Editor and Publisher,  
*Health Market Survey: An Industry  
Report on HMOs and Health Care Markets,*  
December 29, 1989

And there you have it—an HMO advocate’s view that overspecialization is the root of health care inflation in America. Rarely do you see such a view so plainly and forcibly expressed.

Yet it’s a view that has been percolating and occasionally boiling to the surface for at least 10 years now.

## Items

- For about 10 years political arms of family practice and internal medicine have been lobbying for a change in the way specialists and primary care physicians are paid. These lobbying efforts culminated in the passage of the long-awaited RBRVS



“You don’t turn an organizational pyramid—with specialists on the top and generalists on the bottom—on its head overnight.”

system in November 1989. Over a five-year period the new system will shift more payment to “cognitive” physicians—family practitioners, internists, and psychiatrists—and away from “procedural” specialists—heart surgeons, ophthalmologists, radiologists, and pathologists—to name a few.

- For at least five years, I’ve heard Paul Ellwood, Walter McClure, and others argue that somehow and some time inequities of payment ratios between specialists and generalists, which are in the 2:1 to 3:1 range, must be narrowed.

- For as long as anybody can remember, most large organizations—HMOs, multispecialty groups, and large group practices of all kinds—have had less of a differential between surgeons and primary care doctors than in the “outside world.”

Indeed, much of the staff-model HMO’s underlying strategy for containing costs has relied on a richer mixture of generalists to specialists, on using salaried or capitated specialists, and on more “prudent” use of specialists.

Here is editor Boyles again as he expresses his view of the major “cut-back in real terms” of “exorbitant specialist incomes”:

“The forces driving the change: nationwide changes in medical practice norms driven by an emerging battle between specialists and primary care; the rapid replacement of the ‘John Wayne’ physician with younger and more female physicians, and the acceptance of ‘cookbook procedures’ as a valid scientific tool which improves the practice of medicine. HMOs will benefit disproportionately because their networks are often the most efficient, especially under the coming Medicare Part B cost-shifting avalanche. Specialist control will be the HMO’s strongest card, along with better medical feedback.”

Is Boyles right? Are we seeing the fall of specialists? Are specialists responsible for our inexorable medical inflation? Indeed, are specialists harmful to patients?

I’m inclined to doubt such a sweeping view of the restructuring of American medicine.

- In the first place, physicians specialize because the American people demand specialists in all fields of endeavor.

- Second, you don’t turn an organizational pyramid—with specialists on top and generalists on the bottom—on its head overnight. Keep in mind that family practice departments in university medical centers still often

*Continued on page 13*



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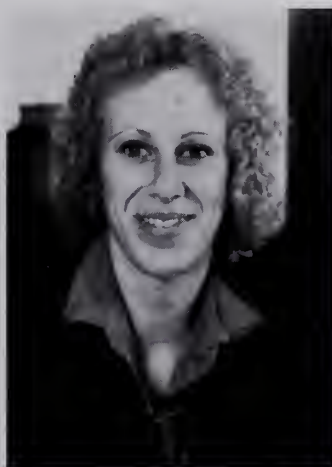
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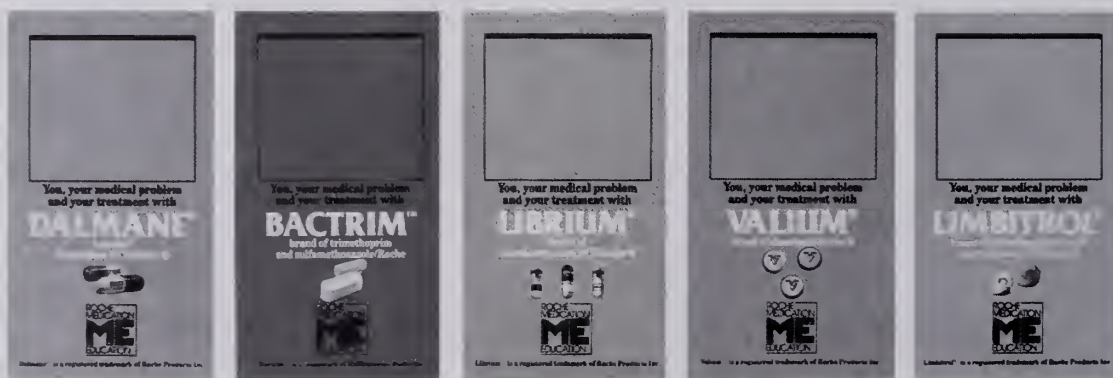


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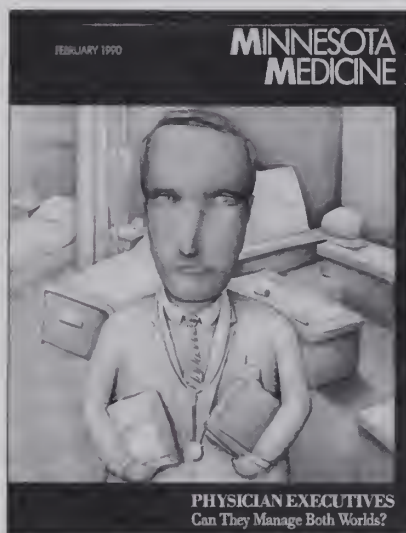
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## The State Health Plan

I am writing in response to Dr. Robert Christensen's "President's Letter" in the February issue of *Minnesota Medicine* ("State Health Plan Concerns Patients, Physicians"). As a participant in the public forum on the State Health Plan, I think it appropriate and necessary that we continue the dialogue started between the medical community and state employees as purchasers and consumers of health care.

AFSCME Council 6 firmly believes that a statewide preferred provider network is and will continue to be an efficient way to reduce health care costs while offering adequate access for state employees. We do not see a PPO structure as a "shortcoming." Rather, it is the only market solution available to us to get a handle on the runaway cost of health care in this state. There are alternatives, but any program that would lead to systemic changes must involve major government intervention in and regulation of the health care industry. Our union is on record as supporting national health insurance and a national health care delivery system. We would hope that organized labor and organized medicine can work together to fashion this new system.

Until that comes, and it is undoubtedly years away, we have to work through the private sector. That is what we have tried to do with the State Health Plan. The plan was not perfect at the start, but the state, the unions, and Blue Cross and Blue Shield of Minnesota have worked to correct its problems. Providers continue to be



added where there is a demonstrated need. Over 40 clinics and individual practices have been added since the end of December. The appeal procedures we established have allowed patients to continue treatment with their current providers when that is medically appropriate. In two cases cited by Dr. Christensen in which necessary continuity of care appeared threatened, the employees are continuing treatment with their current doctors.

We will also continue to work with the other health plans available to state employees. The state offers Physicians Health Plan, MedCenters, Group Health, SHARE, First Plan HMO, and Central Minnesota Group Health. Physicians who wish to serve state employees or keep state employee patients have multiple plans from which to choose. Our union wants our members to have a choice of plans. We think choice is good for the individual employee and good for the health care industry in Minnesota.

Dr. Christensen expresses his concern about the impact of this change on rural health care. We do

not believe that the State Health Plan's contracting decisions are going to drive rural practices out of business. The State Health Plan signed a large number of rural providers (in proportion to the number of state employees in each area). To state that "the loss of all state employees could push some rural practices over the brink" is misleading. One rural physician from a clinic that chose not to sign with the State Health Plan told a legislative hearing that the contract terms were not sufficient and that the loss of his state employee patients would have no economic effect on his practice.

Dr. Christensen urges the use of "modest copays" to discourage overuse of medical services. Our union believes there are serious problems with copays. For necessary care, they are simply a way of shifting costs away from the premium to the person who needs care. We have negotiated health plans paid for by premiums from both the employer and the employee. We believe that once the premium is paid, health care should be covered in full. For "unnecessary care," copays may have a role. Our union has agreed to copays for inappropriate use of the emergency room. However, the problem with across-the-board copays is this: If the goal of copays is to discourage patients from going to the doctor, they have to be more than "modest," in which case, the patient must make a clinical decision as to whether he or she needs care. We believe that decision should be made by a physician, not by a patient more worried about the cost



of the care than the need for it.

I share Dr. Christensen's concern that the State Health Plan is not "the answer." Where we may differ is on the direction to go to find a long-term solution. I suggest that a return to the classic Blue Cross-Blue Shield plan that includes every doctor in the network, with copays and deductibles, is simply not going to happen. The solution will lie in adopting a national plan that ensures universal access and high-quality, effective care. We can get there in one of two ways. The national plan can be the result of a long, drawn out, and bitter political battle between health care providers, health plans and insurance companies, employers, labor unions, consumer groups, seniors, and so forth. Or, the national plan can be the result of a cooperative effort between all the players. This effort will involve difficult negotiations and compromise. It will require that those involved be willing to give up long-held political positions and admit that none of us has a lock on truth and justice. A plan produced through this kind of cooperation could have a chance of delivering top-quality affordable health care to everyone. AFSCME wants to work *with* the medical community, not against it, in developing such a plan.

Pete Benner  
Director

AFSCME Council 6, AFL-CIO  
St. Paul, Minnesota

## A Response

The American health care system is not perfect, but it is fixable! Not by tearing down our current system but by building on its strengths. To mend our system, I believe we need to do the following:

- We need to define and make available to everyone an "essential medical care" benefits package.

Current benefits packages include excessive, unnecessary benefits that dramatically increase health care utilization.

- We should use our pluralistic system of health care delivery to provide universal access to health care. I believe this is one of the strengths of our current system because it allows for some patient choice and healthy competition.
- We need to establish a funding mechanism that will make health care affordable to everyone, incorporating consumer cost-sharing, such as copayments and deductibles to decrease the demand for unnecessary care by the public (much like paying for long-distance phone calls controls the unnecessary use of the long-distance phone system). "Negotiated health plans" (no matter who pays the premiums) that provide "first-dollar" coverage are a major cause of patient demand for unnecessary health care. Health economists have shown repeatedly that consumer cost-sharing is a crucial element in balancing the demand for health care services by the public.<sup>1</sup> We know now that the original HMO concept was flawed, in part, because it included first-dollar coverage. Initially, it was thought physicians could control patients' demands for unnecessary health care in the clinic setting, but the physician is trained to be the patient's advocate and not the patient's adversary, and rightly so. The patient-physician relationship must not be violated!
- Payers must create incentives for patients to "buy right" to reward efficient physician practice styles.
- We need to develop practice parameters to help physicians provide more cost-effective, quality health care.
- We need to assure continued support of biomedical research to keep up the pace of scientific discovery, but using practice parameters, we must learn how to use the new technology more selectively.

I salute Mr. Benner, who represents many of our patients, for his expressed willingness and interest in working together with physicians to improve the best health care system in the world!

Robert D. Christensen, M.D.  
President, Minnesota Medical  
Association

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## Measles Vaccination

The incidence of measles dropped progressively following the introduction of the measles vaccine in 1963. The nadir was reached in 1983, when less than 1,500 cases were reported in the United States. Since then, the incidence has risen dramatically, with nearly 16,000 cases being reported in 1989—over a 400 percent increase from 1988. In response to this increase, the Minnesota Department of Health (MDH) released its recommendations for measles immunization in a January 18, 1990, memo. After reviewing the experience in Minnesota, the MDH recommended that the MMR vaccine be given to children at 15 months and a second dose be given at entrance into middle school or junior high school.

The American Academy of Pediatrics (AAP) and the Centers for Disease Control also recommend two doses of MMR. However, while the AAP and MDH recommend the second dose at entrance into middle school or junior high school, the CDC recommends it be given at entrance into elementary school. Unfortunately, these differences may create some confusion.

*Continued*

In Minnesota, the majority of measles cases are occurring in persons 10 years of age or older. By following the MDH recommendation, the benefit of the immunization strategy will be seen quickly, since those at greatest risk are targeted for reimmunization.

Another important benefit of the MDH recommendation for reimmunization at age 10 to 12 is that physicians will have further access to adolescents at an age when physician guidance can have a great impact. Adolescents face many stresses today and have many medically and socially related questions. Studies such as that by Rogers and Elliott<sup>1</sup> show us that topics dealing with lifestyles, sexuality, interpersonal and family relationships, and body changes are important to adolescents. As we begin seeing adolescents for "well-child" visits to reimmunize with MMR, we need to remember the importance of anticipatory guidance. The following issues are ones you may wish to discuss with your patients in this age group:

**Diet:** talk about the importance of balanced meals and avoidance of excessive junk food;

**Dental health:** remind patients to brush and floss regularly;

**Drugs:** urge patients to avoid the use of alcohol, tobacco, and illicit drugs;

**Exercise:** urge patients to participate in regular physical activity;

**Growth:** review anticipated growth and body changes;

**Mental health:** discuss signs of depression and suicide prevention strategies;

**Rest:** stress the importance of adequate sleep;

**Safety:** remind patients to use seat belts and to observe bicycle and skateboard precautions;

**Sexuality:** be sensitive to questions about sexuality, determine whether the adolescent has opportunities to discuss this in the home, and review contraception and STDs;

**Social and family relationships:** evaluate social opportunities such as involvement in scouts, church groups, and communication with parents and peers.

While reimmunization with MMR upon entrance into middle school or junior high school will reduce the incidence of measles, other benefits can be realized as we interact with these adolescents. Since persons in this age group often do not volunteer information and are hesitant to ask questions, the physician often needs to initiate the discussion during these encounters.

Byron J. Crouse, M.D.  
MAFP Representative to the  
Minnesota Department of Health  
Immunization Work Group and  
Assistant Director  
Duluth Family Practice Center  
Duluth, Minnesota

#### REFERENCE

1. Rogers JA, Elliott BE: The physician's role in adolescent health education. *Minn Med* 72:461-466, 1989.

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### Editors Notebook from 7

retain their second-class status.

- Third, you don't turn off public demand for access to the best specialists and the latest procedures by changing the law or organizational structures.

- Fourth, you don't suddenly convert the American public's belief in technological progress and perfection by saying such technology is overused, inappropriate, or wasteful.

- Fifth, the current critics' argument that at least one-third of all medical practice, or all medical specialists, or all hospitals is a waste is probably overstated. In the experience of Blue Cross and Blue Shield of Minnesota in introducing its Value Health Sciences appropriateness review of 10 surgical procedures, the procedures have been found to be "inappropriate" in only about 6 percent of cases.

- Sixth, among medical students, educators, and practitioners, I have yet to see a dramatic shift in the belief system that a specialty-driven medical system is one that provides greater excellence for patients and greater rewards for specialists. This belief system has probably been overstated, and it has probably driven the physician distribution pendulum too far toward specialists, but it is a belief system that still dominates the mind of medicine.

Specialists will continue to occupy a key place in the economics, politics, and structure of American medicine. Compromise will be struck—payment will be shifted more toward generalists. HMOs and multispecialty groups will hire more salaried specialists. And specialists will remain a powerful force, but they will have to justify their procedures.

Minds can be changed, but not overnight and not quickly by those outside the traditional power structures of medicine. MM



# Radiologists as Swimmers and Surfers

Minnesota Medicine interviews J. Duncan MacGibbon, M.D.

**A**s I was interviewing J. Duncan MacGibbon, M.D., president of Suburban Radiologic Consultants, Ltd., a group of 37 radiologists, a thought came to me: radiologists fall into two categories—surfers and swimmers.

*Surfers are high-profile types. They ride technological waves—CT scanners, ultrasound, contrast angiographs, and now MRI machines. Each wave is higher, more expensive, more productive in diagnostic information, and more essential to the state-of-the-art practice of medicine.*

*Swimmers float in the troughs between swells—occasionally rising to mount the next crest, more often subsiding in crevices between froth to do what needs to be done to support the next peak, sustaining the practice as technology moves it relentlessly forward.*

Dr. MacGibbon, for 22 years a radiologist at Fairview Southdale Hospital, is a low-profile swimmer, quiet, self-effacing, and eloquent in his way about the hard work required of radiologists to meet clinical demands for the latest and the best. This hard work includes head work—just keeping up intellectually with each technological surge—and body work—attending machines and interpreting the images in hospitals and emergency rooms as clinicians seek even quicker and more accurate information.

Dr. MacGibbon isn't complaining about the hard work. He's simply commenting that the new technologies require attention to detail by radiologists. In Dr. MacGibbon's eyes, he's riding a few waves of his own—he chose the right specialty, just as it was cresting; he selected the right group of suburban radiologists, just as the Twin Cities suburban population was surging; and he picked the right hospital system, just as it was recognizing that joint ventures with radiologists were the organizational wave of the future.

*Which all goes to show you have to swim to surf, and you have to pick the right waves, too.*



J. Duncan MacGibbon, M.D.

“Most procedures we’re doing now didn’t even exist when I started practice.”

**Minnesota Medicine:** Dr. MacGibbon, you’ve been a practicing radiologist since 1968. Your entire career has been at Fairview Southdale Hospital and with the Suburban Radiologic Consultants. How has your practice changed in those 22 years?

**MacGibbon:** There have been great changes in the practice of radiology. Most procedures we’re doing now didn’t even exist when I started practice. Ultrasound, CT, and MRI are all new technologies. Nuclear medicine has progressed considerably. The amount of after-hours work is much greater than it was when I first went into practice. CT, ultrasound, and these other technologies are ordered frequently and at all hours.

**Minnesota Medicine:** So your hours are longer? Aren’t the new machines supposed to make life easier?

**MacGibbon:** That’s not the way it works out. First of all, being on call is more demanding than it was 20 years ago. In the past, we could cover multiple hospitals with one person on call. No longer. When you’re on call, you’re extremely busy. As you get older and less able to tolerate longer hours, it’s hard to put in a full day’s work and then work all night.

**Minnesota Medicine:** Are these longer hours primarily due to emergency room coverage?

**MacGibbon:** Yes. It seems increasingly necessary to make diagnoses while patients are in the emergency room. The new payment rules demand that the diagnosis be made before the patient is sent home or admitted to the hospital. A precise diagnosis often requires a definitive diagnosis, and you must have a definitive diagnosis before you can be reimbursed.

## Radiology Group Practice

**Minnesota Medicine:** You’re part of a 37-person radiology group. That’s a large group. Where are all of these radiologists practicing?

*Continued on page 44*

# Radiologists as Image-makers

*Minnesota Medicine interviews William M. Thompson, M.D.*

*I first met William Thompson, M.D., on a plane on the way back to the Twin Cities from Honolulu. I had been in Hawaii to give a talk, and Dr. Thompson was there to attend a radiology convention. He was in an exuberant frame of mind. He had been with his friends, he had learned a great deal, and his specialty was on a roll near the frontiers of medicine.*

*From his body language and the speed and flow of his talk, it was clear Dr. Thompson was an enthusiastic advocate of his specialty.*

*As well he might be. This young man of 46 is head of the Department of Radiology at the University of Minnesota. This department has a rich and distinguished history of leadership by such super-towering figures as Leo Rigler, M.D., H. O. Peterson, M.D., and Eugene Gedgaudas, M.D. Bill Thompson is bent on making his contribution, too, in the form of a national center at the university.*

*These are exciting times for Dr. Thompson, for the University of Minnesota Department of Radiology, and for radiology in general. In the last 15 years, radiologists—using contrast media, invasive catheters, CT scanners, ultrasound equipment, and magnetic resonance imaging—have taken much of the guesswork out of medicine. Radiologists have demonstrated repeatedly that a direct image of reality within the body is often worth a thousand words of carefully reasoned differential diagnosis or even a thousand dollars worth of indirect testing.*

*And yet obstacles loom on the horizon—turf battles with other specialists over who takes and reads the films, reimbursement battles with government over how much to pay, and cost-benefit battles over when to use the costly new machines.*

*As for myself, a pathologist, I wish my radiologist friends well. Not that they need my best wishes. They've always done well when left to their own devices. Besides, radiologists have always been more perceptive than other physicians—they're always seeing things in other people that we miss.*

**Minnesota Medicine:** Dr. Thompson, you've been chief of the Department of Radiology at the University of Minnesota for three years now. Why did you accept that position? Has it lived up to your expectations?



William M. Thompson, M.D.

**"Leading the charge does produce some anxiety, but I wouldn't have it any other way."**

**Thompson:** I accepted the chairmanship at the University of Minnesota because I felt it offered me a unique opportunity to build an outstanding academic radiology program. The University of Minnesota Department of Radiology is extremely rich in tradition. Many outstanding academic radiologists have trained here. I feel extremely fortunate to have inherited two brand-new facilities, one at the University of Minnesota Hospital and the other at the Minneapolis Veterans Administration Medical Center.

With these facilities, I felt that I could further enhance the university's outstanding radiology program. To date, I feel that almost everything has lived up to my expectations. We are continuing to build on a strong program that was started under the direction of Dr. Leo Rigler.

**Minnesota Medicine:** Tell us about your background—where you grew up, where you went to college and medical school, and where you received your training.

**Thompson:** I grew up in Albuquerque, New Mexico, where my father practiced radiology from the 1940s until the early 1980s. I attended Colgate University and the University of Pennsylvania Medical School. I did my internship at Case Western Reserve and then spent two years in the U.S. Public Health Service in Anchorage, Alaska, prior to doing my radiology residency at Duke University. I remained on the staff at Duke University from 1975 until I took the position here at the University of Minnesota in 1986.

**Minnesota Medicine:** What is the scope of your job at the University of Minnesota? How many employees does your department have? How many residents do you train?

*Continued*



**Thompson:** As professor and chairman of radiology, I am responsible for the university's teaching program. We have 44 residents who rotate through four hospitals, the University of Minnesota, the Minneapolis Veterans Administration Medical Center, the Hennepin County Medical Center, and the Minneapolis Children's Hospital. With over 60 M.D.s and Ph.D.s in the four hospitals, we have one of the largest radiology residency training programs in the United States.

I am responsible for the academic appointments of all these individuals at all the hospitals and the clinical care of all the patients at the University of Minnesota. In addition, I am the program director of the Diagnostic Radiology Residency Training Program.

Many other faculty members with clinical appointments are based in hospitals throughout the Twin Cities. These individuals participate in our teaching program, both at the university and at the VA Medical Center.

### *A Radiology Training Ground*

**Minnesota Medicine:** Is there a demand for radiology residencies? Does demand outstrip the supply of residencies?

**Thompson:** Right now there seems to be a real demand for radiology residents and fellows for jobs in private practice. This is ironic, since five years ago people were saying that we had too many radiologists, and they were predicting that we would have too many radiologists in the future. There is still a shortage of radiologists today, but it's hard to say what will happen in the future.

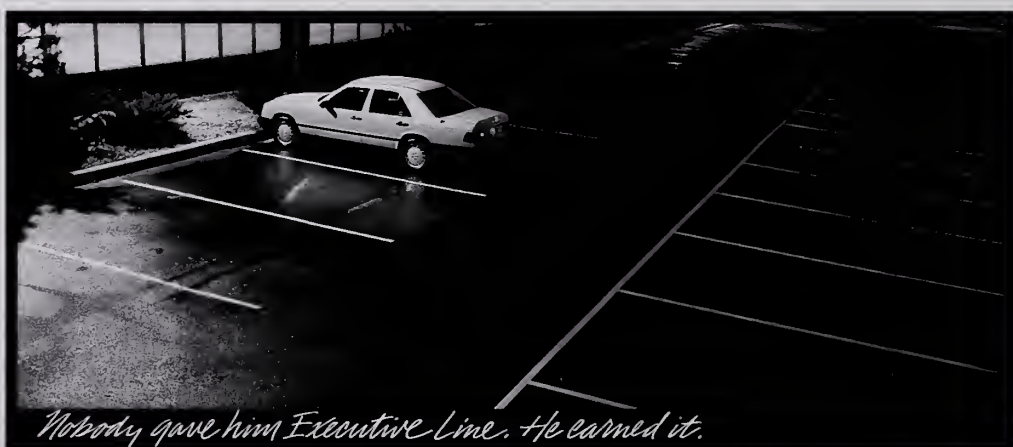
**Minnesota Medicine:** How many candidates do you have, and how many residents do you accept? What parts of the country do they come from?

**Thompson:** We have one of the largest radiology training programs in the country. We accept 11 residents per year and hope in the future to accept 12 per year. This would mean a total of 48 residents. We have roughly 250 to 300 applicants for these positions and interview about 120 individuals per year. We have been very fortunate to accept residents from all over the country. Nine different medical schools are represented in our current first-year class. This year we interviewed medical students from 62 medical schools from all over the country. Minnesota's reputation is improving, and we are attracting a much broader base of students.

I have been pleased with the response from our own medical students, too. This year we have 19 Minnesota students applying for our residency, and a significant portion of them are among the top students in the class. Apparently, we are doing something right if we are attracting this many people from our own medical school class. A few years ago, we had only six or seven members of a class applying.

### *A High-tech Image*

**Minnesota Medicine:** When you completed your residency in 1974, the EMI Corporation in England had just introduced the CAT scanner. Since then, radiology has been riding a technological tiger. Ultrasound has come into its own; the CAT scan has moved from the head to



*Nobody gave him Executive Line. He earned it.*

the body; MRI has become the latest in technological marvels; and now there's lots of talk about the PET scan. How do you radiologists keep up with all these developments? Isn't it frustrating and anxiety producing?

**Thompson:** The only way we can keep up with the state-of-the-art technology and all the developments that have occurred in the past 15 years is to have subspecialists in virtually every area, including both organ systems and technology. To be part of the cutting edge of diagnostic radiology, our faculty must continue to attend courses whenever new developments arise. It certainly isn't frustrating and, actually, is extremely exciting to be involved on the cutting edge of the technology. Leading the charge does produce some anxiety, both for me and the faculty, but I wouldn't have it any other way.

**Minnesota Medicine:** Back in 1976, Howard Hiatt, dean of the School of Public Health at Harvard, said technology ought to be frozen in its tracks. He added that we ought to form technological assessment institutes to accomplish this stoppage of technology. At the same time, Joseph Califano, then head of HEW, said we have more CAT scanners in Southern California than in all of England. Such a proliferation of CAT scanners, Califano said, was "obscene." To me, the comments of Hiatt and Califano look quaint and irrelevant in retrospect. It is very difficult to stop technology. What do you think are the dynamics that drive technology, particularly imaging technology, at such a breathless pace?

**Thompson:** Without a doubt, the new age of computers

has played a major role in driving imaging technology at such an incredible pace. In the United States, in particular, there has also been a strong desire to have the best, most up-to-date technology in the health care system. Also, patients in the United States are significantly better educated about medicine than patients throughout the world. And, finally, our capitalist system really drives technologic development.

**Minnesota Medicine:** How has technology changed the lives of radiologists?

**Thompson:** This new imaging technology has significantly changed the lives of radiologists. We can now provide more specific and significant information to our clinical colleagues concerning the diagnosis and treatment of their patients than ever before. We also can intervene on many occasions and treat the patient using relatively noninvasive percutaneous techniques. These advantages have been helpful in the palliation of many malignancies as well as in the primary treatment of both infected and noninfected fluid collections in many organ systems. The new technology has improved our position in the health care team. We have become an invaluable resource and are essential for not only the proper care of patients, but also for advancement in diagnostic treatment.

### *The Radiologist's Role*

**Minnesota Medicine:** Do you believe clinicians are depending more on radiology for diagnosis? How much is

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this dependence due to increased precision and accuracy and how much to defensive medicine?

**Thompson:** I believe that clinicians are depending more on radiology than ever before because we can provide so much more specific information than we could before the development of our cross-sectional modalities. This dependence has been primarily due to our increased precision and accuracy, and not very much due to defensive medicine.

**Minnesota Medicine:** Would you say that the "new" radiology is more, or less, invasive than it used to be?

**Thompson:** Most of the advancements in radiology have given us technology that is significantly less invasive than in the past. This is particularly true with diagnostic ultrasound, CT, and magnetic resonance imaging. However, I should add that this new imaging technology has also allowed us to be more *appropriately* invasive than in years past; we can precisely guide catheters and needles into specific areas with more precision and fewer complications than ever before.

**Minnesota Medicine:** I would imagine "turf battles" might arise between radiologists and neurologists in the case of CT scanners and between radiologists and cardiologists in the case of coronary and peripheral vessel angiography. Any comments?

**Thompson:** We certainly have had turf battles across the country. They have occurred primarily in the high-tech areas of CT and MR, where many nonradiologists, particularly neurosurgeons and neurologists, recognize the financial benefits of owning their own systems. Fortunately, this has not been a major problem in Minnesota, and most imaging centers are under the control of radiologists.

Coronary arteriography is one battle radiology has lost. Twenty-five years ago, coronary arteriography was done by radiologists, and, in fact, radiologists taught many cardiologists the technique. Unfortunately, this occurred at a time when most radiologists were not interested in doing coronary arteriography. Radiology basically lost this field to cardiology because of radiologists' lack of interest in the technique. Had we known about angioplasty, I don't think we would have been so willing to give up coronary arteriography.

I'm not sure what will happen with these turf battles. It's fairly well known that about 30 percent to 40 percent of all diagnostic radiology is performed by nonradiologists. The public may not be aware of the impact of having this amount of radiology performed by less-qualified individuals. If people were better informed, I

don't think they would tolerate it. Perhaps federal legislation will be enacted that will prevent nonradiologists from doing radiology.

### *The University's New Imaging Institute*

**Minnesota Medicine:** I understand you are organizing an imaging institute. What do you hope to accomplish in this institute, and how far along are you in the planning process?

**Thompson:** We are putting together a magnetic resonance imaging and spectroscopy institute. It will be housed in a 6,000-square-foot building to be built on River Road adjacent to the old Variety Club Heart Hospital on the university's Minneapolis campus. In the building there will be a 4T whole-body research magnet as well as a 4.7T small-bore system for animals. Both systems are totally dedicated to research, and we plan to use the 4T magnet to develop clinical imaging and spectroscopy programs. We should be breaking ground for the building this month and hope to be opening the institute by mid to late summer. This institute will be unlike any other in the country, with the 4T whole-body magnet and input from most of the clinical and basic science sections of the

medical school. We are extremely excited about this institute. We have very good scientists working in spectroscopy who are national leaders in the field.

**Minnesota Medicine:** Could you share with us your vision of the future of radiology?

**Thompson:** MR imaging provides us better methods for evaluating neurologic disease, and I believe it has the potential to provide more specific information about disease processes. I am optimistic that we will be doing metabolic or at least subcellular imaging.

Another area of development that may prove extremely valuable is positron emission tomography, or PET scanning. This technique uses radioisotopes to label specific compounds metabolized by the body. These isotopes are picked up by specific organ systems, which then can be imaged. The technique provides another way of looking at metabolic information. We are fortunate to have a PET center here at the University of Minnesota that is being developed at the Veterans Administration Medical Center.

The combination of our magnetic resonance imaging and spectroscopy program and our PET program should keep us on the cutting edge of technological research and development. It is an exciting time for radiology. I think we are just beginning to scratch the surface in many of these new areas.

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"In the United States, in particular, there has also been a strong desire to have the best, most up-to-date technology in the health care system."

# Secret Proprietary Standards of Care

## *A Medical Academy's Response*

*Kent S. Wilson, M.D., and Thomas A. Christiansen, M.D.*

"Medicine's only source of moral strength is its ordained role as the advocate for all the sick. Physicians are the stewards of medical knowledge. We hold that knowledge in trust for the sick.

It is not our proprietary possession. We are responsible for its quality, distribution, and availability. Our moral health as a profession demands that we speak out whenever any policy—prospective payment, for-profit ventures, cutbacks in care, and the rules of commerce and competition—impairs our capacity to care properly for those who are ill."

—Edmund Pellegrino, M.D.

graduation address, University of Minnesota Medical School, Spring 1989

How should physicians react when confronted with a plan that imposes secret clinical decision-making criteria upon physicians and patients, disrupts physician-patient relationships, and shifts corporate health plan cost-containment decisions onto participating physicians, all under the coercive threat that the plan will be used as a tool to "shrink the provider network"? How should physicians react when, in practice, the plan yields numerous conclusions that, if implemented, would result in substandard or inappropriate care, thus placing the patient at greater medical risk and the physician at heightened legal risk?

### *The Problem*

Blue Cross and Blue Shield of Minnesota (BCBSM), which insures 1.1 million Minnesotans, announced in the spring of 1989 that it had purchased and would install the Medical Review System developed by Value Health Sciences, Inc., of Santa Monica, California. One of the principals of that company, Mark R. Chassin, M.D., who transferred the concept of appropriateness review from the Rand Corporation to Value Health Sciences, described the plan to Minnesota physician groups and the media. BCBSM proposed to implement the plan on a trial basis from July through December 1989, and then to expand it to full operational status in January 1990. BCBSM indicated that adenoidectomy, tonsillectomy, and middle-ear ventilating tube placement would be among the first 10 procedures to be reviewed. Because of this singular attention, the Minnesota Academy of Otolaryngology-Head and Neck Surgery (MAO-HNS) appointed an ad hoc committee of member physicians drawn from throughout the state, major teaching institutions, and its governing council to

meet with BCBSM in early July 1989.

During that meeting, it became apparent that this \$1 million Medical Review System had been purchased to implement the quality strategy of medical cost containment, the underlying assumption being that much of current medical care is either inappropriate or ineffective and hence wasteful and excessively expensive. Thus, reducing inappropriate or ineffective treatment would yield cost savings and perhaps other benefits. References in the public literature have suggested that as many as 15 percent to 30 percent of studied surgical procedures may be "inappropriate." The VHS system was installed in response to the demands of BCBSM's corporate clients for a more stringent review of medical procedures, the committee was told.

### *The VHS System*

The VHS Medical Review System employs a two-tiered program to determine appropriateness for diagnostic and therapeutic procedures. The first step involves a computer-guided data acquisition interview in which a review nurse abstracts the medical record. If adequate key data points are present, the nurse interviewer, upon comparison with pre-programmed criteria, may agree the procedure is indicated and confirm medical appropriateness. If the initial computer-based data acquisition yields insufficient data, or for some other reason the computer indicates the procedure is inappropriate, the case is referred for physician review. At this second level of review, a staff physician conducts an interview with the primary or consultant physician to obtain further data or clarification of the indications for the recommended procedure. The review physician is responsible for determining the appropriateness or inappropriate-



ness of the procedure. Some reviews involve a patient interview by a utilization review nurse independent of and prior to any contact with the treating physician. No patient notification is undertaken by BCBSM. It is the treating physician's responsibility to inform the patient if the treatment has been deemed inappropriate.

VHS developed its internal review standards through a review of medical literature and presentation of hypothetical cases to a small national panel of physicians who judged the appropriateness of treatment in those cases.

Because of the significant implications for patient care under the VHS system, the MAO-HNS proposed to BCBSM that the American Academy of Otolaryngology-Head and Neck Surgery national specialty clinical indicators be the basis for a collaborative collection of data, definition of practice patterns, and determination of unacceptable patterns. BCBSM rejected that proposal but agreed to include MAO-HNS members as peer reviewers.

## Objections

The academy has several objections to the Medical Review System developed by VHS, Inc., and implemented by Blue Cross and Blue Shield of Minnesota.

### Secret Criteria

The secret proprietary nature of the decision-making criteria and the rigidity of the program are our primary concerns. Licensing restrictions and BCBSM policy prohibit any copying or distribution of decision-making criteria or assessment of the system's underlying logic. The MAO-HNS ad hoc committee was informed that the operational manuals could be reviewed by individual physicians in a secure site at the BCBSM home office in Eagan, but no other copying or wide dissemination would be allowed. Secret proprietary utilization review criteria pose a major threat to both patients and physicians. Physician medical decision making is largely based on published scientific research, shared clinical experience, and the physician's assessment of the patient's best interest. Public information has been the cornerstone of medical judgment since medicine became "scientific" in the early 20th century. Secret standards violate international codes developed to protect patients and physicians from inappropriate interference in medical practice.

Difficult issues may arise regarding the VHS medical review program and Minnesota's informed consent law, which requires complete disclosure of potential benefits and risks of medical procedures, including the risks associated with not undergoing a procedure that has been deemed inappropriate by BCBSM's secret review criteria. It seems quite clear that if a physician's judgment is impaired or limited through economic intimidation via secret review criteria, that fact would be apparent to plaintiffs' attorneys and the public at large, resulting in an increase in negligence suits and a loss of confidence in the profession.

Secret proprietary review standards such as the VHS

program's may lead to violation of the Joint Commission on Accreditation of Healthcare Organization's requirement that physicians deliver single-standard medical care to all patients in JCAHO-approved hospitals. How will patients know what is appropriate treatment if the standards by which physicians are being judged are known neither by the physicians nor by the patients?

Finally, in the absence of widely published criteria, third-party carriers could adjust their review criteria at will in attempts to enhance their own financial position at the expense of patient care.

### Corporate Medicine

The VHS program represents the corporate practice of medicine. The entrepreneurial developers of this program will profit from the budget-driven motives of third and fourth parties in the managed care system. The primary goal of this program is rationing of care by denial of services and, secondarily, contraction to a smaller provider network.

The VHS review system facilitates the practice of medicine by nonphysicians, computers, and physicians not licensed to practice in Minnesota. The VHS national review panel included only one Minnesota physician. Medical standards applied in this state should be developed by physicians accountable to Minnesota regulatory boards and agencies. The specifics and implications of this program should be of concern not only to the Board of Medical Examiners, but also to the state Commerce and Health departments.

BCBSM's direct access to patients by telephone may jeopardize physician-patient trust and may increase liability risk. This is particularly pertinent since, with the septoplasty review program instituted in January 1990, a patient-contact phone call will be made without the physician's knowledge. Should the recommended surgical procedure be denied as inappropriate, the physician will then be notified of this decision and required to so inform the patient.

### Non-educational Goals

VHS is not fundamentally educational to the medical profession. Like the American Medical Association, the MAO-HNS believes such programs should be used primarily for medical education purposes to improve patient care. Unlike the VHS system, the Minnesota Clinical Comparison and Assessment Project, a joint undertaking of physicians, hospitals, and organized medicine, proposes complete disclosure and local development of screening criteria.

### High Cost

The VHS Medical Review System is costly in terms of time and money. The program was initially purchased for \$1 million and will no doubt require significant annual maintenance expense. The imposition on physician and physician staff time is considerable. The initial interview may take 10 to 15 minutes. A secondary phy-

sician interview may take from as little as 10 minutes to as much as one hour. Expansion of this review mechanism to other carriers may be overwhelming.

### *Sample Case*

The following case illustrates some of these shortcomings. A young child who had previously undergone PE tube placement for chronic otitis media returned to see an otolaryngologist because of recurrent middle-ear effusions. The patient had been treated with antibiotics for some time, but the effusions did not resolve. The otolaryngologist found greater infection than ordinarily expected and recommended prompt PE tube replacement. As the VHS Medical Review System requires, the clinic notified BCBSM. The nurse reviewer believed PE tube placement was inappropriate and referred the case for physician review. After extensive discussions with the physician reviewer, the otolaryngologist still felt PE tube placement was medically indicated, but the reviewer considered the procedure inappropriate. As required by the plan, the otolaryngologist notified the patient's parent of the difference of opinion, and the parent elected to proceed with PE tube placement. The afternoon before the scheduled surgical procedure, the patient developed a facial nerve palsy in the infected ear as a result of extension of the middle-ear infection to the facial nerve. The myringotomy procedure was accomplished, and the facial nerve palsy cleared.

This case illustrates several points. It appears that examining the patient clinically may yield important information not available to distant reviewers. It seems that the corporate cost-containment strategy employed via the VHS program in this situation would have resulted in substandard care. If the facial nerve palsy had not developed, but the procedure had been done anyway, the possibility of a negligence suit would have been substantially heightened had any complication arisen, since BCBSM had deemed the procedure inappropriate. In fact, this case retains its "inappropriate" designation in BCBSM's records, leaving the otolaryngologist with a black mark by his name and an increased likelihood of disciplinary action or exclusion from further BCBSM contractual participation.

### *The Academy's Response*

The Minnesota Academy of Otolaryngology-Head and Neck Surgery recognizes that quality assurance mechanisms require assessment of appropriateness criteria and that these criteria will be increasingly specific. We recognize that there is broad community support for medical organizations to play a leadership role in developing such standards, but we believe that medical standards and medical decision making must be completely open.

Accordingly, the MAO-HNS approached the American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS) about the development of more specific clinical indicators. The national academy had previously issued clinical indicators that, while comprehensive, were less specific than the VHS indicators briefly reviewed by the MAO-HNS ad hoc committee. However, the national academy did not agree that more specific clinical indicators are more useful for appropriateness screening and for medical education, as the MAO-HNS argued, and urged the MAO-HNS to endorse the more general national indicators.

Instead, the MAO-HNS developed its own set of Preferred Practice Patterns, which are built upon the clinical indicators published by the AAO-HNS and fulfill the general definition of practice parameters suggested by the American Medical Association. The MAO-HNS believes it must articulate its own judgments regarding otolaryngology-head and neck surgery care and that publicly disseminated, specialty-based criteria best serve the public. (Copies of the Preferred Practice Patterns and supporting bibliography can be obtained by sending a request with a self-addressed, stamped envelope to: MAO-HNS, 4141 Park Lawn Avenue, #116, Minneapolis, MN 55435.)

MAO-HNS will work to educate patients and physicians about the administrative and medical care issues under discussion and makes the following recommendations and requests:

1. We recommend wide distribution of the MAO-HNS Preferred Practice Patterns (provided on pages 22 and 23) to physicians, patients, health plans, consumer advocacy groups, and regulatory agencies;
2. We recommend a resolution asking the MMA House of Delegates formally to request the withdrawal of this program from Minnesota until physicians' major objections to the program are resolved;
3. We request that the Minnesota Board of Medical Examiners, Department of Commerce, Department of Health, and the Attorney General's office investigate this program to determine whether it presents a potential for abuse and a threat to patients' best interests; and
4. We request that the MMA House of Delegates forward a resolution to the AMA asking that organization's legal department to take an active interest in this issue and to carry out necessary investigations and appropriate legal intervention.

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*Kent Wilson is president of the Minnesota Academy of Otolaryngology-Head and Neck Surgery.*

*Thomas Christiansen chairs the MAO-HNS Ad Hoc Committee on the BCBSM Medical Review System.*



## **Minnesota Academy of Otolaryngology - Head and Neck Surgery Preferred Practice Patterns - 1990**

The Minnesota Academy of Otolaryngology-Head and Neck Surgery has developed a series of guidelines termed Preferred Practice Patterns that identify characteristics and components of quality otolaryngology care in terms of clinical indicators. These Preferred Practice Patterns were developed as a service to patients, members of the Academy, and the medical community at large. These Preferred Practice Patterns are particularly timely and appropriate as third-party payers and government grapple with the need for maintaining quality care in the face of cost containment and as traditional attitudes of Academy members are challenged by changing patterns of health care delivery and emerging market forces.

These Preferred Practice Patterns are neither minimal nor aspirational; they represent quality care commensurate with present knowledge and resources. They are based upon the best available scientific data as interpreted by panels of knowledgeable health professionals. In some instances, the data are particularly persuasive, as with results of carefully conducted clinical trials, and provide clear guidance. In other instances, the panels relied more heavily on their collective judgment and evaluation of available evidence. As better data become available, these guidelines will be altered as appropriate. The current guidelines are based on criteria developed by the American Academy of Otolaryngology-Head and Neck Surgery.

Preferred Practice Patterns provide guidance to the pattern of practice, not to the care of a particular individual. While they should generally meet the needs of most patients, they cannot possibly best meet the needs of all patients. Depending upon a host of medical and social variables, it is anticipated that it will be necessary to approach some patients' needs in different ways. The ultimate judgment regarding the propriety of the care of a particular patient must be made by the physician and patient in light of all of the circumstances presented. Adherence to these Preferred Practice Patterns will certainly not ensure a successful outcome in every situation. These Preferred Practice Patterns should not be deemed inclusive of all proper methods of care or exclusive of other methods of care reasonably directed to obtaining the best results.

It is the Academy's intention to update all Preferred Practice Patterns as new knowledge dictates. To ensure all Preferred Practice Patterns are current, each is deemed valid for three years from the date of issue unless superseded by a revision.

### **Tonsillectomy and/or Adenoidectomy**

- I. Tonsil and/or adenoid hypertrophy with airway obstruction, presenting with: **A.** Sleep apnea and/or disturbance of sleep architecture confirmed by abnormal sleep study, tape recording of disturbed sleep, or strong history of excessive snoring or sleep disturbance. **1.** Respiratory pauses. **2.** Daytime somnolence. **3.** Enuresis. **4.** Behavior disturbances. **5.** Morning headache. **6.** Hyperactive behavior.  
The following conditions not attributable to other causes: **B.** Cor pulmonale. **C.** Failure to thrive. **D.** Obligate mouth breather. **E.** Any swelling, swallowing, or eating disturbance. **F.** Speech abnormalities. **G.** Non-urgent obstructive symptoms if tonsils seem enlarged—stertorous breathing or mouth breathing with or without sleep apnea.
- II. Tonsil and/or adenoid hypertrophy with upper airway obstruction, associated with: **A.** Suspected oro-facial anatomic abnormalities in a narrowed upper airway. **B.** Dental growth abnormalities. **C.** Cardiac disease exacerbated by the upper airway obstruction. **D.** Chronic otitis media.
- III. Infection of the tonsils and/or adenoids with a history of: **A.** Recurrent tonsillitis despite adequate medical therapy. **1.** Three infections per year for three consecutive years. **2.** Four to six infections per year for two consecutive years. **3.** Six to eight infections within a one-year period. **4.** These thresholds are modified by evidence of: **a.** Peritonsillar abscess. **b.** Peritonsillar abscess with extension into adjacent tissues. **c.** Chronic adenoiditis/abscessed cervical lymph nodes. **d.** Airway obstruction. **e.** Febrile seizures. **f.** Poorly controlled diabetes mellitus. **B.** Recurrent tonsillitis associated with: **1.** Cardiac valvular disease and recurrent Streptococcal tonsillitis. **2.** Recurrent otitis media. **3.** VP shunts in place. **C.** Persistent pathogenic Streptococcal carrier state not responsive to medical therapy or in a noncompliant patient. **D.** Chronic intermittent sore throat not attributable to other causes. **E.** Chronic tonsillitis persisting despite antibiotic treatment over several months' duration. **F.** Halitosis and/or chronic focal tonsillar inflammation due to cryptic debris, causing less pain than that of an acute episode.
- IV. Adenoid hypertrophy and/or chronic infection presenting with: **A.** Recurrent or chronic otitis media with effusion, pathologic changes of the tympanic membrane, tympanic membrane perforation and recurrent otorrhea persisting after medical therapy. **B.** Chronic or purulent nasopharyngitis/sinusitis persisting after adequate medical therapy. **C.** Chronic adenoiditis/adenoid hypertrophy associated with purulence. **1.** Associated with recurrent sinusitis. **2.** Unresponsive to medical therapy. **D.** Chronic mouth breathing/persistent nasal obstruction in the presence of large adenoids documented by anterior rhinoscopy, nasopharyngoscopy, or lateral soft tissue neck x-ray. **E.** Chronic snoring.

**This is a paid advertisement of the MAO-HNS.**

**Minnesota Academy of Otolaryngology - Head and Neck Surgery**  
**Preferred Practice Patterns - 1990 (continued)**

**Tympanostomy with Tube Insertion**

- I. Persistent middle ear effusion for two months or longer despite appropriate medical management, based on history and clinical examination, which may include the following: A. Antibiotics. B. Antihistamine/decongestant and/or steroids in selected patients with appropriate indications such as those with allergies, etc. C. Middle ear inflation technique such as politzerization, Valsalva maneuver, etc. D. Competent audiometry, appropriate for age, suggestive of hearing impairment and/or middle ear dysfunction.
- II. Speech or learning deficit associated with hearing loss due to otitis media with effusion.
- III. Early recurrence of effusion after extrusion of tympanostomy tubes that were previously placed because of failed medical management.
- IV. Pathological middle ear findings on otoscopy including atelectasis of the tympanic membrane, adhesive otitis media, developing ossicular erosion, retraction pockets, or cholesteatoma.
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1. Brantly ML, Paul LD, Miller BH, et al: Clinical features and history of the destructive lung disease associated with alpha-1-antitrypsin deficiency of adults with pulmonary symptoms. *Am Rev Respir Dis* 1988;138:327-336

2. Wewers MD, Casolaro MA, Sellers SE, et al: Replacement therapy for alpha<sub>1</sub>-antitrypsin deficiency associated with emphysema. *N Engl J Med* 1987;316:1055-1062.

# Accountability, Affordability, and Quality Health Care

## *Mutual Responsibilities for the 1990s*

*Del Ohrt, M.D., and Fritz Ohnsorg, M.P.H.*

With health care expenditures expected to rise to 15 percent of the gross national product in the 1990s and with a growing number of Americans unable to afford health care, it's no longer business as usual. We at Blue Cross and Blue Shield of Minnesota (BCBSM) do not pretend to have all the answers to the growing health care crisis, but we are convinced we must begin asking the questions. If we and our participating physicians are unable to find plausible answers to very large problems, our respective roles will change dramatically by the end of the decade.

As a health care benefits manager and third-party payer, it is our responsibility to arrange for health care that is affordable for purchasers, that provides for fair reimbursement to health care providers, and that results in quality care for our members. To that end, we are pursuing programs that address *appropriateness* (should the procedure be performed?), *effectiveness* (did the patient benefit?), and *efficiency* (was the procedure the best use of health care resources?).

One of the techniques we are using to identify appropriateness is the Value Health Sciences (VHS) program. We are also using data collection systems such as Medis-Groups and Small Area Analysis, mental health and chemical dependency review programs, and individual case management. VHS is a "logic-based" software system that enables our reviewers to ask the fewest number of questions needed to establish whether a proposed medical service is clearly appropriate, equivocally appropriate, or clearly inappropriate. We acquired the VHS program for a small fraction of the \$1 million claimed by Wilson and Christiansen (see Perspectives, page 19). The annual cost distributed across our membership is extremely marginal and has not materially affected the level of our premiums.

### **No Longer Business As Usual**

In 1989, employer health premiums rose nearly 17 percent, more than three times the general rate of inflation for the economy as a whole. Health care inflation has been rising at a disproportionate rate for several decades. American business and industry, competing in global markets against companies whose health costs are much more predictable and affordable, have made it

clear that their futures depend on health costs being brought under control. Honeywell, where medical costs per employee were increasing by as much as 30 percent a year in the early 1980s, has taken a strong stance on getting its health care costs under control. John M. Burns, M.D., vice president of health management at Honeywell, stated it this way in the August 1989 *Business Month*: "Two major issues prompted us to get involved in health management: the escalation of costs and the articles in the scientific-medical literature documenting the disturbing amount of unnecessary or inappropriate care."

Furthermore, steadily rising health care costs have already resulted in tens of millions of Americans (and possibly up to 400,000 Minnesotans) being unable to afford basic health care benefits. It is economically and morally unacceptable to allow the current trend to continue unabated.

We will continue at BCBSM to research and implement programs like VHS that assure we are paying only for medically necessary care. We have a mandate from our purchasers to maximize the value of each health care dollar.

We know that the health care dollar is spent for services spanning a gradient of value: from those of great and self-evident necessity and worth, to those for which absolutely no medical necessity can be shown. Our purchasers are demanding assurance that their health dollars are not being spent on services at the lowest end of this gradient. Numerous articles have appeared on the subject of medical appropriateness. As far back as 1980, for example, Giebink and Thell reported in the June issue of *Minnesota Medicine* that 53 percent of tonsillectomies, adenoidectomies, or adenotonsillectomies performed at 23 hospitals in Minnesota lacked documentation that justified surgery. Thorough documentation is the first step in establishing the worth of a diagnostic or therapeutic procedure.

Recent studies from the Rand Corporation also suggest that between 14 percent and 32 percent of certain medical procedures ranging from cholecystectomy to carotid endarterectomy operations nationwide have been clearly inappropriate. Moreover, our Small Area Analysis studies, which can document per capita rates of

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"We at BCBSM do not pretend to have all the answers to the growing health care crisis."



surgeries across small geographic areas, have shown significant variation among a number of different procedures. These variations have led BCBSM and many others to ask whether these procedures are appropriate in all cases. In 1988, across our entire membership, BCBSM found that per capita rates of tonsillectomies and adenoidectomies varied more than sevenfold in different areas of Minnesota. During that same period, we also discovered a more than eightfold variation in tympanostomy tube insertions and a fivefold variation in septoplasties. Furthermore, the number of tympanostomies performed across our membership increased by more than 60 percent in the five-year period from 1984 through 1988, and total institutional dollar charges for tympanostomies submitted to BCBSM more than doubled.

### *Putting the Appropriateness Question to the Test*

A renowned group of independent physician researchers, many of whom were from the Rand Corporation, recently achieved a major breakthrough in identifying inappropriate care. Using scientific literature and physician panels, this group classified the possible reasons physicians might have for performing a given service into three separate categories: clearly appropriate, equivocal, and clearly inappropriate. These three categories are the ones into which the Value Health Sciences program places proposed procedures.

The first category, "clearly appropriate," signifies strong agreement that the service would be of definite benefit for the patient and that this benefit clearly outweighs any risks. The second category, which represents services for which no clear agreement can be found either for or against, has been labeled "equivocal." It signifies the enormous, honest difference of opinion about the appropriateness of different styles of medical practice. Herein lies the "art" of medical practice, as well as the focus of ongoing medical research. Such research acts to remove the uncertainty from these practices, thus enabling physicians to agree on whether a service is clearly appropriate or clearly inappropriate.

"Clearly inappropriate," the third category, means that a clearly demonstrated scientific basis exists for concluding that a given service will be of no net value to the patient. In such cases, the risk of performing the service exceeds the possible benefit.

BCBSM believes that services falling into this third category should be systematically identified. Our role is not only to prevent an unnecessary expense, but also to provide assurance that procedures are appropriate. There is virtually no medical intervention that does not carry an attendant risk to the health of the patient. However, we

believe that situations where such attendant risks clearly outweigh marginal or nonexistent benefits should be identified.

If the Value Health Sciences program does not approve a particular procedure, a physician adviser discusses the case with the physician requesting approval. Then, if the physician cannot recommend approval, the requesting physician still has the option of sending the case to an independent physician appeal process. It is nearly inconceivable that a case deserving of approval would fail at this level of appeal, where independent physician reviewers are in no way tied to BCBSM.

Although it is assumed that most physicians have been extensively educated in the scientific basis of their profession, we at BCBSM believe we have an obligation to offer further educational support to physicians proposing a "clearly inappropriate" service. When the known scientific evidence clearly shows that a proposed intervention would offer patients no medical benefit, we are prepared and willing to discuss this to any extent.

### *Some Initial Findings and Observations*

Our experience with the Value Health Sciences program has verified that inappropriate services can be readily identified. We have found a varying level of understanding and cooperation among the different physician specialties. On the whole, the interaction has been constructive. The otolaryngology community's considerable resistance is difficult to understand in light of consumers' and purchasers' expectations. We have had a far more positive response from other specialties.

Secrecy is not the issue. We have made available to the otolaryngologists the criteria by which appropriateness is measured. For example, the Value Health Sciences tympanostomy tube criteria and the criteria advanced by the Minnesota Academy of Otolaryngology-Head and Neck Surgery are virtually indistinguishable.

We puzzle over what is peculiar to otolaryngology that would substantiate that academy's effort to subvert the VHS review process. We would like to make some observations that may illuminate this issue more fully. First, out of 17 procedures being reviewed by the VHS program, four of them are otolaryngology procedures. It should be noted that the VHS procedures were selected on the basis of having a high index for inappropriate utilization. Second, by both percentage and total volume, otolaryngology procedures are the most likely to fail appropriateness criteria. For example, 19 percent of tonsillectomy cases did not meet standards of appropriateness.

Third, and perhaps most telling, is the fact that these procedures often fail criteria, not because of any philosophical disagreement over the criteria, but because the

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"It is economically  
and morally  
unacceptable to allow  
the current trend to  
continue unabated."

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otolaryngologist has failed to document patient history and symptomatology that would minimally be expected, even to satisfy his or her own academy's criteria. In fact, the lack of documentation across all specialties has been surprising. We had assumed that surgery would not be performed without thorough documentation of the clinical indications.

It should be kept in mind that the VHS program continues to evolve and has not resulted in denial of payment for procedures that failed to meet the appropriateness criteria. The VHS program at this stage is educational. It is necessary, however, to verify appropriateness and assure that dollars are spent only on high-quality health care. Where we find this to be true, we will exempt providers who demonstrate accountability in medical decision making. For this to happen, there must be a period of good faith compliance far greater than the 30 percent to 40 percent compliance seen thus far.

BCBSM has established a wide range of successful review programs. Using MedisGroups, we monitor the relative severity of inpatient hospitalizations. We look closely at mental health and chemical dependency admissions to verify the need for inpatient care. We review new and evolving technologies to determine whether investigative therapies can be accepted as routine care. We review the continued necessity of inpatient care for lengthy hospital stays and attempt to direct patients to

alternative settings of care where feasible. High-cost cases are referred to case management. All of this is within a clearly recognized role, which is fundamentally identical to our role in using the VHS program.

Once again let us state that the issue is not one of secrecy. We will continue to share the criteria by which appropriateness for any health care service is determined. The real issue is whether surgery performed for inappropriate reasons should be tolerated in a society with a growing number of individuals who can no longer afford access to health care. The economic implications for physicians performing unnecessary procedures are substantial, but we cannot let this dissuade us from our obligation to both the purchasers and recipients of health care. In this regard, we remain sincerely willing to work with otolaryngologists to mutually demonstrate a commitment to quality, affordable health care. **MM**

*Del Ohrt is vice president and medical director, and Fritz Ohnsorg is senior research associate at Blue Cross and Blue Shield of Minnesota.*

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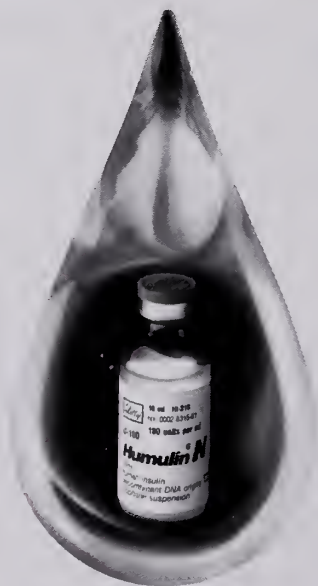
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# Pregnancy & Drugs

*Physicians Face  
New Testing and  
Reporting Law*

While dramatic images of crack and cocaine babies made their way into the media and the public mind, the 1989 state Legislature sought ways to help ensure the birth of healthy babies to drug-free mothers. The result: a well-intentioned but controversial new law that requires Minnesota physicians to test for and report suspected cases of prenatal exposure to controlled substances to local child protection agencies and the Minnesota Department of Health.

According to state Rep. Randy Kelly, DFL-St. Paul, chair of the House Judiciary Committee, the intent behind the law is threefold: 1) to help drug-using mothers and their babies get help, 2) to achieve a uniform statewide policy for dealing with substance abuse during pregnancy, and 3) to provide legal immunity for medical professionals who report suspected drug use in good faith. But many health professionals are concerned that the law discourages women from seeking prenatal care and that it damages the doctor-patient relationship. Others charge that the law threatens pregnant women's civil rights by singling them out for forced drug tests.

How should physicians implement this law in their own practices? What are the implications of testing for and reporting suspected substance abuse? These and other issues were debated at a January conference—"Born Addicted? Prenatal Substance Abuse: The Minnesota Experience"—sponsored by the Minnesota Medical Association and the Minnesota Hospital Association.

*Terry Jopke*

ILLUSTRATIONS BY SUSAN SERSTOCK



The fear that the law will drive women away from prenatal care surfaced as the biggest concern. One participant—a public health nurse—said patients have confided that, “The word is out on the street, and people are staying away to avoid being tested.”

John Fangman, M.D., a neonatologist at Minneapolis Children’s Medical Center, said he believes continuity of prenatal care has noticeably declined since the law was implemented.

Physicians also worry that their patients will not be honest with them about their drug use, depriving the treating physician of essential information. Also controversial is the law’s testing requirement, which allows physicians to test for controlled substances without the patient’s consent. Many believe that not informing the patient goes against long-established ethical and professional obligations.

Other weaknesses have become apparent as the law has been put to the test. For instance, the current law encompasses drugs under Schedules I, II, and III, although the intent of the legislators was not that extensive, said Carolyn McKay, M.D., director of maternal and child health at the Minnesota Department of Health.

Critics of the law also point out that alcohol use during pregnancy, which is not included in the law, is more widespread than other drug abuse and can result in numerous developmental disabilities, including fetal alcohol syndrome (see related story, page 33). The bill was already controversial enough without including alcohol, which is a legal substance, explained state Sen. Ember Reichgott, DFL-New Hope, Senate author of the bill.

Reichgott acknowledges that the statute needs some fine tuning and says the Legislature is looking to the medical community for guidance. In fact, many physician recommendations to clean up the testing and reporting law are being considered by the Legislature and are expected to be adopted this session.

“The medical profession has to come forth with information on the effects of these drugs—and alcohol—on babies,” said former state Sen. Donna Peterson, DFL-Minneapolis. “We try to get as much information as possible from people who have to live with these laws before they are written, but we may have to go back and make clarifications and corrections.”

Peter Mark, M.D., an ob/gyn at Group Health in Minneapolis, has come forth with suggestions he hopes will lead to some changes. Mark has recommended leaving the decision to report up to the physician, eliminating the need to report women who are successfully following treatment programs recommended by their physicians. If the purpose of the law is to help ensure healthy babies, it is unnecessary to report women who are already in treatment programs, he argues. In addition, Mark would like to be able to test for substances up to eight

hours after delivery rather than be limited to the time of delivery, as stated in the law.

Whatever the law’s shortcomings, its intent is laudable: to prevent the apparently widespread abuse of drugs and the wide-ranging consequences for the mother, fetus, infant, and, ultimately, society.

### *Incidence of Prenatal Drug Abuse*

In a Minnesota Department of Health study released last summer, .5 percent to 9 percent of women tested in public and private Twin Cities hospitals had used cocaine in the 48 hours before coming into the hospitals’ labor and delivery departments; 7.6 percent had used marijuana within the past two weeks or so (marijuana traces remain in the body longer than the 48 hours that cocaine traces normally do), and some women had used narcotics. Virginia Lupo, M.D., co-investigator of the study, said the average cocaine use rate for the tested patients was

2.4 percent and that its use appears to be much more common among poor women without health insurance.

Following the release of that study, the Council of Hospital Corporations, a group of 23 Twin Cities-area hospitals, reported in January that the number of drug-exposed babies more than doubled between 1987 and 1988, increasing from 79 to 198, and is still rising.

Although some area physicians say that claim does not fit recent experience in delivery rooms, there is consensus that the problem is significant. Lupo estimates that about 10 percent of the 2,000 births each year at Hennepin County Medical Center are to women who have used cocaine to varying extents during their pregnancies, often with serious consequences for the fetus.

### *Effects of Drug Use During Pregnancy*

“Most women wouldn’t ever intentionally do to their children what they’re doing because of their drug problem,” said state Rep. Kathleen Blatz, IR-Bloomington, House author of the testing and reporting bill.

“Cocaine is a lethal substance,” said Sharon Schaschl, R.N., who works with chemically dependent patients at Abbott Northwestern Hospital in Minneapolis. Cocaine has powerful central nervous system (CNS) effects, creating an intense brief euphoria, a sense of power, and relief from anxiety, fear, hunger, and depression. However, when used chronically, it depletes the brain of dopamine, leaving an addict unable to experience pleasure.

Cocaine acts not only as a CNS stimulant but also peripherally, preventing norepinephrine reuptake at the nerve terminals, which, in turn, increases the level of circulating norepinephrine. This is followed by vasoconstriction, tachycardia, and an acute rise in blood pressure.

Vasoconstriction also occurs in the placenta, reducing blood flow to the fetus. Cocaine induces contractions in the uterus, and animal studies have demonstrated

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“Physicians should look at this legislation as an opportunity to help people get help.”



immediate dose-dependent increases in fetal blood pressure and decreases in fetal oxygen content. The fetal liver cannot quickly excrete the drugs, so most drugs have a longer half-life in the fetus.

Cocaine use by a pregnant woman can result in spontaneous first-trimester abortions, abruptio placenta, premature delivery, and stillbirth. Fetal growth retardation, with diminished birthweight, length, and head circumference, has been documented. Congenital anomalies such as cardiovascular, gastrointestinal, and genitourinary abnormalities, cerebral infarctions, neural tube defects, ileal atresia, and seizures in the neonatal period have been reported.

Such medical problems can have long-term social repercussions. At birth, babies exposed to cocaine tend to be irritable and tremulous. According to Catherine Gatto, M.D., a neonatologist at St. Paul Children's Hospital, these babies are less attentive and are not easily consoled. "We're starting to find problems in the ways these kids interact with others," she said. Because these babies are difficult, bonding between child and parent may be inhibited, creating a greater risk of abuse and neglect. Although the long-term effects need more study, these children must be considered at high risk for developmental and learning disabilities.

"These are not easy children to raise," agrees Patricia Batko, a child-protection supervisor at the Hennepin County Child Protection Agency. "These kids need enormous amounts of time."

### *The Physician's Role*

"[Physicians] should look at this legislation as an opportunity to help people get help," said Schaschl. "They

have a disease." The physician's job is to gather data to provide adequate health care to both mother and baby. This involves writing down objective information—what the physician hears, sees, and smells—sharing observations and concerns with the patient, and documenting her reactions. If the physician has reason to suspect the patient has used drugs during her pregnancy, he or she is required to perform toxicology tests on the mother and/or newborn, with or without the patient's consent. Finally, the physician should give support and make referrals.

"The law does not call for random or routine testing," says HCMC's Lupo. "It requires us, as physicians, to use clinical skills. The goal of the law is to protect children from going home to an environment where drugs are used and a dysfunctional family is resulting from that. Physicians are not social workers. We're not trained to, and we don't have to be able to, assess family suitability for taking a kid home."

"At no time was there ever any intent that this [law] would be a tool for removing children from their mothers' custody," emphasized McKay. "The intent was to get services to the mother, and the mother and child once the child was born, to increase the likelihood that she would be able to parent that child."

### *Criteria for Testing*

Group Health, which has developed a program to identify pregnant patients with drug problems and help them find ways to become drug-free, uses the following indications for urine testing prenatally and at labor and delivery: previous drug use, intrauterine growth retardation, high blood pressure, preterm labor, abruptio placenta, bleeding or pain without cause, and strange or



paranoid behavior. Other indications include prenatal care onset in the third trimester or four or fewer prenatal visits, precipitous delivery (labor of less than two hours, home or emergency room delivery), code red cesarean sections without obvious cause, untoward obstetrical events, jittery baby with normal glucose, and intrauterine death.

Signs of drug exposure in babies may include medical effects or developmental delays during the child's first year that medically indicate prenatal exposure to a controlled substance.

### **Reporting Requirements**

Under the law, physicians have two primary reporting obligations (see also *Medicine, Law & Policy*, page 41). The physician must report toxicology test results to the Minnesota Department of Health twice a year—February 1 and August 1. (Negative test results must also be reported if other evidence indicates drug use.) McKay believes, however, that a technical amendment is needed that would instead require toxicology reports to be listed on the birth certificate. Documentation on the birth certificate would be more meaningful in terms of analyzing the association of cocaine with low birthweight, fetal death, infant death, and transfer to the neonatal intensive care unit (NICU), she said.

The second part of the law mandates the physician to report to Child Protection authorities if the physician knows or has reason to believe that a pregnant patient has used a controlled substance for a nonmedical purpose during her pregnancy.

Although physicians can be charged with a misdemeanor for failing to report suspected abuse, the law is not punitive, says Sonya Steven, assistant Hennepin County attorney. "It is not the intent of this office to do a flurry of prosecutions."

### **Once the Patient Is Reported**

When the Child Protection Agency receives a report of drug abuse by a pregnant woman, the woman is referred for a chemical health assessment and an attempt is made to help her get appropriate medical treatment, according to Patricia Batko of Hennepin County Child Protection. The goal is to help the mother stop taking the drugs and have a healthy baby. The law doesn't carry any criminal penalties; it's strictly designed to help pregnant women stop using drugs. It does, however, give child-protection workers the right to petition the court for involuntary commitment.

If Child Protection authorities receive a report of a newborn affected by a mother's drug use, they assess that situation in terms of the family's needs, living situation, the father's involvement, and available support systems.

Batko acknowledges that treatment programs are limited. No one has been denied treatment, she said, but the type of treatment may not always be the client's first choice. There are currently just two facilities in the Twin Cities where the mother can have her children with her during treatment: Turning Point and Eden Day. There are 30 beds in the two facilities combined.

At Group Health, women identified as high risk in the prenatal period are entered into the health plan's mother-baby health program and attend educational sessions on addiction, the effects of drugs on the fetus and mother, and reasonable expectations for recovery from and relapse into drug dependency. The program protocol provides educational materials, follow-up pediatric and maternal office visits, and referral for continuing care. A social worker and child protection services are notified, and a chemical dependency assessment is performed.

Finally, a list of community support services is provided and a follow-up plan is set and documented. Drug toxicology screening for the baby and mother is also part of the protocol.

Group Health has also developed prenatal care guidelines for drug-dependent women, which include visits every two weeks until week 30, and then every week until delivery. Patients are screened for sexually transmitted diseases at the first visit and at 34 to 36 weeks, and testing for HIV is encouraged. Ultrasound is performed late in the first or early in the second trimester, and serial ultra-

sounds are performed to monitor for intrauterine growth retardation. Nonstress testing is done every two weeks from 30 to 35 weeks, and then weekly. The patient's permission for subsequent random urine testing is obtained and recorded in the chart at the earliest encounter.

Early treatment of the mother's chemical dependency is clearly the more promising and cost-effective means of addressing the problem. "There is a much lower cost for the mom in preventive treatment," Batko said. A child severely affected by drug abuse during pregnancy can easily cost \$100,000 or more. One day in the NICU might cost \$1,500. She stresses that physicians have a responsibility to test and report drug abuse in pregnant women to enhance the chances that patients can get help when it will do the most good.

"The physician is still the most powerful person in the patient's health care," concludes Abbott Northwestern's Schaschl. Patients need education about the effects of drug abuse on themselves and on their children.

Ultimately, however, the obligation falls on the patient, argues Group Health's Mark. "At some point the patient has to make a conscious decision to stop using drugs."

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# Alcohol

## *A Bigger Drug Problem?*

John Rosengren

**W**hile crack babies and the state's new statute requiring physicians to test for and report illegal substance abuse by pregnant women make headlines, alcohol remains the nation's leading cause of birth defects and mental retardation.

Minnesota physicians have been required since August 1, 1989, to test and report patients suspected of abusing controlled substances (see feature story, page 29, and *Medicine, Law & Policy*, page 41). The statute, under Minnesota's child abuse reporting laws, does not include monitoring for alcohol, although its use is more widespread than illicit drug use, and the number of children suffering damage from maternal drinking is probably greater, say area experts.

In addition to increasing the risk of miscarriage, heavy drinking during pregnancy can result in hearing impairment and hyperactivity in the child and may cause Fetal Alcohol Syndrome (FAS). FAS babies are typically born prematurely, weigh less than their expected birth-weight, and exhibit a small head circumference, flattened midface, sunken nasal bridge, a smoothed and elongated philtrum, central nervous system dysfunction, and varying degrees of organ system malformation. At birth these infants may be tremulous, irritable, overreactive to sounds, and have feeding difficulties such as weak sucking ability.

Other FAS characteristics—curvature of the spine, overabundance of permanent teeth, or seizures—may not show up until the child is much older. Born small, FAS children usually do not catch up to normal physical growth. Mental growth is similarly retarded, with the mean IQ of FAS patients falling between 65 and 80, according to various studies. Many never achieve intellectual and social abilities beyond those of a seven to nine year old. Failure to thrive and poor judgment are also characteristic traits of FAS. Most of these children never become self-sufficient.

Nationally, approximately two of every 1,000 ba-

bies are diagnosed with FAS, about 10,000 births annually. For every baby diagnosed with FAS, the March of Dimes estimates as many as 10 others are born with fetal alcohol effects (FAE), in which significant impairment is identifiable, but not all the characteristics of FAS are present.

Even these statistics probably underestimate the incidence of neurological and developmental impairment caused by maternal drinking; some effects go undiagnosed as alcohol-related and others are more difficult to identify, said Carolyn McKay, M.D., director of maternal and child health at the Minnesota Department of Health.

Some babies born with FAS/FAE may be missed because of difficulties in diagnosing the effects, but the figures may also be low due to under-reporting by physicians. "I don't believe FAS is that difficult to diagnose," McKay said. "Most physicians don't report alcohol use by the mother during pregnancy on the birth certificate. There's an extreme reluctance by all professionals to place on a child a label with negative social connotations."

The number of so-called "cocaine babies" seems to overshadow the statistics for infants diagnosed with FAS; the National Association for Perinatal Addiction Research and Education estimates that 375,000 babies born each year are affected by cocaine. But Robert ten Bensel, one of the state's pioneers in FAS research, says that does not prove cocaine the larger problem. "That is not a valid comparison," says ten Bensel, a professor in the University of Minnesota's School of Public Health. He points out that the 10,000 figure for FAS babies refers to those with the full syndrome; the 375,000 refers to babies exposed to cocaine, but who are not necessarily affected beyond birth.

Since alcohol use is more common than use of illicit substances, ten Bensel and others suspect its effects are



similarly more widespread. "Alcohol is clearly a bigger problem," says Mary Margaret Conroy, M.D., a neonatologist at Group Health in Minneapolis. "More people drink alcohol in moderate amounts than abuse drugs."

In the 1989 Minnesota Department of Human Resources household survey, 1 percent of women ages 18 to 25 reported current use (within the past month) of cocaine; 71 percent reported current alcohol use. Among women ages 26 and older, 0.7 percent reported current use of cocaine; 52 percent reported current use of alcohol. Jan Smaby, director of the state's Office of Drug Policy, recently identified alcohol as the most used and abused drug in Minnesota.

Some physicians say the relative risk of cocaine and other drugs is higher than that of alcohol, but to date no known level of alcohol consumption has been determined as safe. The effects of alcohol on women and their babies are not universal but include many variables. The mother's age, diet, number of children, and overall health appear to have a bearing on how the mother's drinking will affect the child, explained Virginia Lupo, director of fetal medicine at Hennepin County Medical Center.

Since no safe amount has been determined, the prevailing medical practice is to recommend no drinking during pregnancy. Former Surgeon General C. Everett Koop in 1989 declared that abstaining from alcohol at the time of conception, during pregnancy, and throughout nursing is the only guaranteed safe practice.

Since 1973, when the first paper on FAS was presented in the United States and more recently with the wide appeal of *The Broken Cord*, Michael Dorris' story of his son's FAS, physicians and the general public have become more aware of the risks of drinking during pregnancy, but there is still reluctance to accept the severity and scope of the problem. "The resistance is so great on two levels," ten Bensel said. "There is a cultural denial because it is part of the American way of life to drink. And on the individual level, there is confusion among individual practitioners about the boundaries they can cross when advising on drinking."

The state Legislature, not wanting to enter the murky waters of determining an alcohol level pregnant mothers should not exceed, adopted a safer approach. It attached to the new substance abuse reporting statute a clause that requires public schools to add programs that educate students about the risks of drinking and using other drugs during pregnancy. "If we're going to turn things around, we must change attitudes," said Hennepin County Attorney Tom Johnson, whose office helped draft the substance abuse reporting statute. "That is better done through education than through legislation," he said.

Educational efforts aimed at the general public are intended to prevent FAS/FAE. Those aimed at physicians

are intended to encourage another form of prevention—early intervention. "The greatest danger is in the first trimester," ten Bensel said. "But it is still advantageous to quit any time during pregnancy to prevent further damage."

Ten Bensel, Conroy, McKay, and others stress the need for physicians to be better trained to recognize the effects of FAS so they can properly diagnose it, but they insist that physicians must learn to detect warning signs even earlier, during pregnancy. "The trick is not diagnosing FAS, but diagnosing the mother's alcoholism," Conroy said. "We've already lost if we diagnose the child as having an elongated philtrum. All we can do then is

protect his baby brother, the mother's next pregnancy."

In March 1989 Group Health established its Mother-Baby Chemical Health Program with the goal of identifying alcohol and substance abuse among pregnant mothers. The program includes a drug assessment on the mother's first prenatal visit and a chemical dependency evaluation by a certified counselor on the third visit. Patients who are identified as alcohol or substance abusers are offered education on healthy prenatal care and,

when appropriate, referred to chemical dependency treatment programs. "This system allows physicians not familiar with chemical dependency to expedite the referral of at-risk patients directly to the appropriate obstetrical care giver," writes Group Health ob/gyn Peter Mark, M.D., in a recent article in *HMO Practice*.

Unfortunately, available treatment programs may not be adequate to address the specific needs of pregnant mothers, especially those with other dependent children. Most treatment programs are designed for the mainstream white male population, and few offer child care services. The state is currently underwriting three pilot treatment programs designed specifically for pregnant women and their children, but these programs alone may not accommodate the demand, thus reducing treatment referrals for pregnant mothers.

Although the new substance abuse reporting law has come under attack from some medical, legal, and child protection professionals for possibly scaring women away from prenatal care and infringing upon constitutional rights, most are sympathetic to the law's intent: safeguarding healthy births. Physicians, lawmakers, and treatment counselors agree this is their common objective. "The emphasis should not be on shaming," ten Bensel says, "but on having a healthy baby." **MM**

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# Treatment of Acute Herpetic Neuralgia

## *A Case Report and Review of the Literature*

Todd M. Hess, M.D., Lon J. Lutz, M.D., Lee A. Nauss, M.D., and Tim J. Lamer, M.D.

### ABSTRACT

Herpes zoster (shingles) is a viral infection that results from a reactivation of a dormant varicella zoster virus. It has been estimated that more than 300,000 new cases are seen in the United States each year.<sup>1</sup> Several factors influence the incidence of infection, with increasing age being the most consistent.<sup>2</sup> Postherpetic neuralgia is the No. 1 cause of intractable, debilitating pain in the elderly and is the leading cause of suicide in chronic pain patients over the age of 70.<sup>3</sup>

### Case Report

A 60-year-old woman was referred for evaluation and treatment of right-sided lower abdominal pain of four days' duration. The pain was described as "sharp, jabbing" sensations superimposed on a background of "constant burning" and was limited to the right side in the distribution of dermatomes T<sub>11</sub> through L<sub>1</sub> (Figure 1). Onset of symptoms closely coincided with the appearance of vesicular lesions consistent with herpes zoster. She had no other relevant medical problems.

After informed consent was obtained, the patient was placed in the right lateral decubitus position, and a 22-gauge, 3.5-inch spinal needle was introduced into the epidural space at the T<sub>12</sub>-L<sub>1</sub> interspace. Injection of 8 ml 0.25% bupivacaine with 40 mg methylprednisolone produced complete pain relief within 30 minutes.

The pain had not returned by the following day when the patient returned for follow-up, and the involved area was no longer sensitive to light touch. Further epidural injections of 8 ml 0.25% bupivacaine and 40 mg methylprednisolone were administered on the following three days. The involved area had diminished in size prior to the fourth injection (Figure 2), and the patient has remained pain-free since the first injection.

### Review of the Literature

The varicella zoster virus produces an infection that inflames the dorsal root ganglia of spinal or cranial nerves. On microscopic examination, the dorsal root ganglia are swollen and hemorrhagic.<sup>4,5</sup> The virus is commonly introduced in childhood

and may be manifested as chickenpox. Varicella zoster may remain dormant in the dorsal root ganglia for years. Later in the patient's life or when the patient is in an immunosuppressed state, the virus may once again replicate and produce herpes zoster. The infection usually involves one or two dermatomes and appears to migrate superficially along sensory nerves. The virus enters the epidermis and multiplies, producing the characteristic rash and vesicles.<sup>4,5</sup> Some authors believe that a decrease in cellular-mediated immunity allows this viral reactivation, but often there is no identifiable cause.<sup>5</sup>

Postherpetic neuralgia is pain that persists for more than four weeks after the onset of an acute herpes zoster infection. Advanced age appears to be the most significant factor leading to postherpetic neuralgia.<sup>2</sup> Up to age 60, 10% to 20% of patients with herpes zoster infections will develop postherpetic neuralgia; after age 70, the incidence increases to 50%.<sup>6</sup>

The thoracic dermatomes are the most common sites for herpes virus infection, but the first division of the trigeminal nerve is also commonly involved. The pain of postherpetic neuralgia is usually described as constant and severe. Burning is often noted, with frequent lancinating pains in the affected dermatome. The sharp pains may be aggravated by light touch (hyperesthesia), may occur at any time, and are especially severe at night.

Classic physical signs include unilateral involvement in a dermatomal distribution. A hypopigmented area of skin is usually present and is insensate to pinprick but hyperesthetic to light touch. Patients commonly take precautions to prevent clothing,



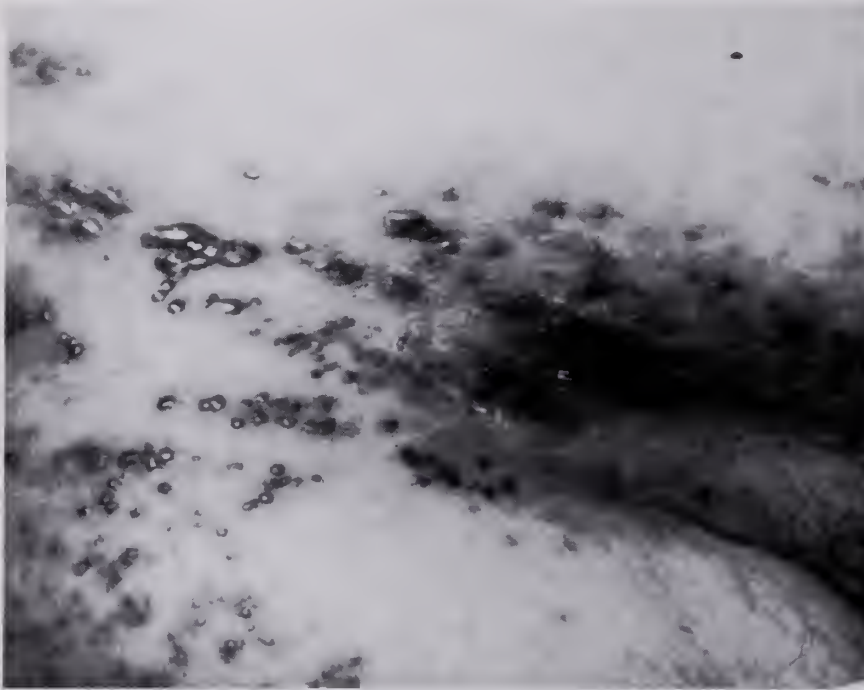


FIGURE 1 — Vesicular lesions consistent with the appearance of acute herpes zoster. The lesions were accompanied by sharp, jabbing pain limited to the involved area, dermatomes T<sub>11</sub>-L<sub>1</sub>.



FIGURE 2 — Appearance of the involved area after three epidural injections of 0.25% bupivacaine and methylprednisolone. Note healing of the vesicular lesions. The pain had not returned since the first injection, and the area was no longer sensitive to light touch.

drafts, and bed sheets from coming in contact with the affected skin. Secondary pain behavior characteristics may become apparent and include depression, increasing somatic complaints, and social withdrawal.

#### Drug Treatment

To date, there has been no consistently reliable treatment for the relief of postherpetic neuralgia. We present available treatment methods that appear to have some clinical merit. Once the diagnosis has been established, treatment should begin immediately. Studies have suggested the importance of early aggressive treatment of the acute herpes zoster infection.<sup>7,8</sup> In two separate, double-blind, randomized studies, Acyclovir has been shown to hasten skin healing, shorten the period of viral shedding, and shorten the duration of acute neuralgia. However, Acyclovir did not decrease the incidence of postherpetic neuralgia.<sup>7,8</sup> Treatment with Acyclovir (400 mg five times daily for five days) should be initiated as soon as possible, preferably within 24 hours of onset.<sup>7</sup> None of the antiviral agents has proven efficacious at any point beyond the acute phase of infection.<sup>7,8</sup>

No evidence to date has shown the use of systemically administered nonsteroidal anti-inflammatory agents or corticosteroids to be of benefit in postherpetic neuralgia, but these agents may be effective in relieving pain and promoting healing of vesicles in acute herpetic infections.<sup>9</sup> Pain associated with postherpetic neuralgia does not respond well to narcotics. Hyperpathia and dysesthesias are also quite resistant to this form of therapy. Therefore, long-term use of narcotics should be discouraged.

Tricyclic antidepressants have been used with some success in the treatment of postherpetic neuralgia.<sup>10-12</sup> Pain relief is considered to be independent of psychotropic effects and may be due to inhibition of serotonin and norepinephrine reuptake centrally.<sup>12</sup> Nortriptyline (Pamelor), amitriptyline (Elavil), and doxepin (Sinequan) have been used exten-

sively as first-line agents. Amitriptyline may produce prolonged sedation and dry mouth in some patients. The initial dose is 10 to 25 mg at bedtime for approximately four days, and is increased as tolerated until effective pain control is achieved. Doses of 75 to 150 mg at bedtime may be required. Doxepin and nortriptyline may not be as sedating and may be similarly introduced. It is important to inform the patient that two to four weeks may be required for the medication to have its full effect. If one tricyclic antidepressant is ineffective or poorly tolerated, others should be used, or a combination of a tricyclic with a phenothiazine may be instituted.<sup>11,13</sup> Fluphenazine (Prolixin) 1 mg in the morning may be effective and may be increased incrementally to 5 mg daily. Extrapyramidal effects may be quite apparent in the elderly, and the risk-benefits ratio of this medication must be thoroughly evaluated before its use.

Anticonvulsant medication can be added to the pharmacologic regimen, especially if the patient feels sharp, lancinating pain. Phenytoin 200 to 400 mg/day or carbamazepine 200 to 600 mg every day in divided doses may be effective. When treated with anticonvulsants, the patient should be monitored closely for side effects such as bone marrow depression, diplopia, ataxia, confusion, and nystagmus. Anticonvulsants are most effective when used in combination with tricyclics.<sup>14</sup>

### Neural Blockade Treatment

Neural blockade can play an important role in the treatment of acute herpes zoster neuralgia and postherpetic neuralgia.<sup>15-18</sup> Forrest noted that in 63 patients with postherpetic neuralgia who received a series of three epidural steroid injections, 89% responded with complete pain relief, which continued through the one-year follow-up period.<sup>17</sup> Early intervention may be the most important factor in obtaining significant relief from acute herpes neuralgia and postherpetic neuralgia.<sup>16,17</sup> Epidural or sympathetic blockade within a few weeks of the onset of symptoms

has been shown to produce a significant reduction in pain and the resolution time of acute infection, and may prevent postherpetic neuralgia.<sup>15,17-19</sup> Dan, et al. studied 1,000 patients with acute herpes neuralgia and found that if nerve blocks were completed between two to four weeks after the skin eruptions were noted, at least 86% of patients responded with total pain relief and no progression to postherpetic neuralgia. If the nerve blocks were delayed until one year after the skin eruptions, only 13% responded with pain relief.<sup>16</sup> Early use of neural blockade may limit neuronal input into the inflamed dorsal root ganglion and interrupt progression to the refractory state observed in patients with postherpetic neuralgia of long-standing duration. Corticosteroids administered at the site of injury may reduce inflammation and edema in the dorsal root ganglia and dorsal horn.<sup>15,17</sup>

Epidural injection of a dilute local anesthetic (usually bupivacaine 0.25% or 0.125%) and a corticosteroid preparation (triamcinolone or methylprednisolone 20 to 40 mg) may provide dramatic, immediate resolution of symptoms. The level of injection depends on the location of the lesions and may be repeated daily. The usual course is a series of three or four injections, which may be repeated if symptoms return. A recent study has also shown sympathetic blockade to be effective in the treatment of acute postherpetic neuralgia.<sup>20</sup> This prospective, randomized, double-blind study showed that a series of three to four injections with 0.25% bupivacaine was more effective than a placebo. Sympathetic blockade via the stellate ganglion may be the treatment of choice for patients with lesions involving the face and neck.<sup>19,21</sup>

### Surgical Treatment

Several surgical procedures have been attempted to reduce postherpetic pain. Cordotomy, rhizotomy, and neurectomy have produced only limited, temporary relief.<sup>22</sup> Recently, dorsal root entry zone lesions (DREZ) have produced significant improve-

ment in patients with severe postherpetic pain refractory to other methods of treatment.<sup>23,24</sup> The authors caution that additional research is necessary before DREZ can be widely employed, and the procedure should probably be reserved for those in whom other methods of treatment have failed.

### Other Treatments

Experience with transcutaneous electrical nerve stimulation (TENS) for postherpetic neuralgia has been disappointing. Pain relief initially occurs in 50% to 70% of patients but declines to 30% to 50% at one month, 20% to 30% at one year, and 10% to 20% after one year.<sup>25</sup> Similarly, dorsal column stimulation and brain stimulation produced analgesia (BSPA) have provided only limited temporary relief.<sup>26</sup> Acupuncture and ultrasound have not proven to be of therapeutic value in patients with postherpetic neuralgia.<sup>27,28</sup>

### Conclusion

In summary, we described a 60-year-old patient with acute herpes zoster treated with a series of epidural nerve blocks using local anesthesia and corticosteroid. The patient noted rapid resolution of the pain and cutaneous vesicles and did not develop postherpetic neuralgia. We briefly discussed current management options for acute herpes zoster pain and postherpetic neuralgia. There is evidence that early intervention using neural blockade could dramatically improve outcome in this group of patients. **MM**

*Todd Hess is a resident in the Department of Anesthesiology, Mayo Clinic and Mayo Foundation, Rochester, Minnesota.*

*Lon Lutz is an instructor in Anesthesiology, Mayo Medical School.*

*Lee Nauss is an assistant professor of Anesthesiology, Mayo Medical School.*

*Tim Lamer is an instructor in Anesthesiology, Mayo Medical School, and director of the Pain Clinic, Department of Anesthesiology.*

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# Drug Use During Pregnancy

## *New Minnesota Law Requires Doctors to Test and Report*

David M. Fortney, J.D.

Minnesota physicians, according to a 1989 law, must test and report pregnant patients suspected of using controlled substances for nonmedical purposes. This new law affects all physicians in the state regardless of the nature of their practice.

In addition to discussing the scope of prenatal exposure to controlled substances, this article explains the goals and objectives behind the legislation, describes the major components of the law, assesses the impact of the legislation on physicians and their patients, identifies problems with the legislation as adopted, and suggests needed corrections or clarifications.

### *The Scope of the Problem*

In 1989, Virginia Lupo, M.D., director of fetal medicine at Hennepin County Medical Center, studied pregnant women's drug use in the Twin Cities to measure the extent of prenatal exposure to a number of substances. Lupo, an associate professor of obstetrics and gynecology at the University of Minnesota, conducted the study in nine metropolitan hospitals between April 1 and June 30. Each hospital was classified into one of three categories: hospitals primarily serving patients covered by public assistance, hospitals primarily serving private pay patients, and hospitals serving both private pay and public assistance patients. The term "public assistance" includes Medicaid and General Assistance, as well as indigent patients. "Private pay" includes privately insured and HMO patients.

Lupo collected urine samples from 1,800 women admitted to one of the nine hospitals for labor and delivery. Because no identifying in-

formation was recorded, the analysis did not distinguish the women by age or race. The samples were, however, segregated by hospital classification as defined above. Of the 1,800 samples, 200 were randomly selected

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"Testing and  
reporting should be  
governed by  
reason."

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for screening to test for the presence of cocaine, cannabis, amphetamines, barbiturates, and opiates. The assay could detect cocaine ingested within 48 hours of the sample collection or cannabis that was used within two to four weeks of the test.

The percentages of positive screens for cocaine or cannabis, grouped by hospital category, are shown in the table.

Overall, the study resulted in positive screens for cocaine in 2 percent of the samples. No evidence of amphetamine use was found in the study group; however, there was minor evidence of opiate or barbiturate use by these pregnant women. Cocaine use was found across all socioeconomic strata, although it was most heavily concentrated in the patients served by the public hospitals.

### *The Legislative Response*

In response to the growing evidence of prenatal substance abuse, Minnesota legislators were convinced that legislation was needed to ensure that pregnant women using controlled substances are identified in the early stages of pregnancy and that appro-

priate referral and intervention occur. Under existing child abuse reporting laws, physicians must report to either the local welfare authorities or law enforcement agency any instances in which they reasonably believe a child is being abused or neglected. Physicians and their attorneys were worried that the existing child abuse reporting laws' immunity provisions might not cover a physician who made a report prior to delivery. Without the immunity protection, physicians could be sued for breach of patient confidentiality.

The Legislature responded by enacting Chapter 290, Article 5, of the 1989 Laws of Minnesota. This new legislation makes a number of significant changes in Minnesota's laws. Altered are the laws regarding both civil commitment and child abuse. More significantly for the practicing physician, the new legislation defines certain situations in which the physician is required to perform toxicology tests on a pregnant patient or the newborn infant, and it expands the circumstances under which physicians are required to report patients to local welfare authorities.

### *The New Legislation*

This new law, which took effect August 1, 1989, can best be understood as doing three things: 1) it creates a new category of person who is subject to civil commitment, 2) it alters the definition of "neglect" in the existing child abuse reporting statute, and 3) it requires physicians, under specified circumstances, to administer toxicology tests to pregnant women or their newborn infants.

For many years prior to this change, people were subject to civil



Table

*Percentages of positive screens for cocaine or cannabis, grouped by hospital type*

| Hospital type  | Cocaine | Cannabis |
|----------------|---------|----------|
| Public         | 7.25%   | 13%      |
| Public/private | 1.0%    | 4%       |
| Private        | 0.4%    | 3%       |

commitment if a court determined that they met one of three criteria. They could be committed if they were found to be mentally ill, mentally retarded, or chemically dependent. Each of these terms had a specific statutory definition. The 1989 Legislature amended the definition of "chemically dependent person" to include "a pregnant woman who has engaged during the pregnancy in habitual or excessive use, for a nonmedical purpose, of any of the following controlled substances or their derivatives: cocaine, heroin, phencyclidine, methamphetamine, or amphetamine."

Two points should be noted about this provision. First, the statute contains no indication of what constitutes "habitual or excessive use." Second, this is the only portion of the new law that is limited to the five named substances. All other portions of the statute use the term "controlled substance," which, for purposes of this law, is defined as any substance listed in Schedule I, II, or III.

The second major change concerns child abuse reporting. Minnesota imposes mandatory reporting obligations on a number of professionals, e.g., physicians, nurses, licensed psychologists, teachers, and clergy—among others. These professionals are required to report immediately (within 24 hours) suspected child abuse or neglect. The reporting is not discretionary; it is mandatory. The 1989 legislation expanded the scope of "neglect" in the context of the abuse/neglect statute. "Neglect" has now been defined to also include "prenatal exposure to a controlled

substance, used by the mother for a nonmedical purpose, as evidenced by withdrawal symptoms in the child at birth, results of a toxicology test performed on the mother at delivery or the child at birth, or medical effects or developmental delays during the child's first year of life that medically indicate prenatal exposure to a controlled substance."

Practitioners should note that this change deals with mandatory reporting in the postpartum period, not the prenatal period. However, the postpartum reporting relates to a medical condition caused by prenatal use of controlled substances. (Reporting in the prenatal period will be addressed below.) As already noted, this re-

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"Will the law  
diminish trust  
between physician  
and patient,  
particularly when the  
physician must know  
what substances have  
been used, but then  
must report the  
patient?"

porting requirement is triggered by the presence of any Schedule I, II, or III substance.

In addition to amending the civil commitment statute and the existing child abuse/neglect statute, the 1989 legislation imposed new mandatory reporting and testing requirements on Minnesota physicians.

Besides requiring physicians to report the use of controlled substances discovered in the postpartum stage, the new legislation also requires that any mandatory reporter "immediately report to the local welfare agency if the person knows or has reason to believe that a woman is pregnant and has used a controlled substance for a

nonmedical purpose during the pregnancy." A number of observations are in order regarding this provision. First, it relates to reporting in the prenatal stage. Second, unlike the civil commitment statute's standard of "habitual or excessive use," the reporting provision is triggered by a single use of a controlled substance. Third, unlike the reporting of child abuse postpartum, which may be reported to either the local welfare agency or to the local law enforcement authorities, prenatal child abuse is only reportable to the welfare agency. Practitioners should note that failure to comply with the reporting obligations under the child abuse/neglect statute, both prenatally and postpartum, constitutes a misdemeanor.

The new legislation requires that a physician administer a toxicology test to a pregnant woman if she has obstetric complications that indicate possible controlled substance use. A physician is also required to administer a toxicology test to each newborn infant if the physician has reason to believe, based on a medical assessment, that the mother used a controlled substance during pregnancy. If the results of a toxicology test on either the mother or the infant are positive, the physician must report this information to the local welfare agency. If the results are negative, the physician still is required to report to the local welfare agency if there is reason to believe, based on other medical evidence, that the mother used a controlled substance for nonmedical purposes.

It should be noted that the law does not require the physician to obtain the woman's consent to test her or the newborn. This is one of the most controversial provisions of the legislation. Many observers have noted that the law's failure to require consent does not supersede the physician's ethical or professional obligation to inform and advise the patient of the tests being administered and the consequences of a positive test result.

The statute states that "any physician or other medical personnel ad-

ministering a toxicology test to determine the presence of a controlled substance in a pregnant woman or in a child at birth or during the first month of life is immune from civil or criminal liability arising from administration of the test, if the physician ordering the test believes in good faith that the test is required and the test is administered in accordance with an established protocol and reasonable medical practice." Attorneys advising physicians should note that the immunity provision requires that the test be administered in "accordance with an established protocol." Thus, physicians and their attorneys would be well advised to develop written protocols to delineate under what circumstances the tests will be ordered.

The statute does address one of the most vexing problems for physicians who seek social service agency intervention for a patient: the issue of physician liability for sharing patient information without the patient's authorization. In addition to providing

immunity for administering a toxicology test, the new statute incorporates the previously existing statutory immunity given to physicians reporting in good faith suspected abuse or neglect.

The law has been criticized because there are some obstetric complications that may or may not indicate controlled substance use. For example, premature labor, while consistent with or indicative of cocaine use, does not conclusively indicate cocaine use. However, the statute does not speak in terms of obstetric complications that are not otherwise explainable.

Finally, the legislation does not specify who will pay for the toxicology tests.

### *Implications for Practice*

The new statute presents a number of significant issues for physicians. Will patients delay or fail to seek prenatal care because they fear discovery of their drug use? Will patients who use controlled substances seek prenatal

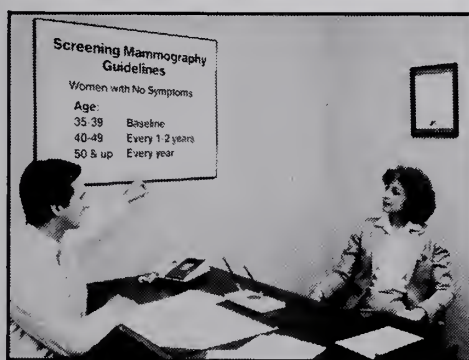
care but attempt to hide their drug use from their doctors? Will the law diminish trust between physician and patient, particularly when the physician must know—for the sake of the patient's health—what substances have been used, but then must report the patient? How does the physician explain the rationale of the statute in terms of fostering fetal health when the statute doesn't address excessive prenatal use of alcohol?

Clearly, physicians are not required to begin testing all pregnant women or newborns. Testing and reporting should be governed by reason. Physicians must ask whether it is reasonable to believe an obstetric complication is the result of ingestion of a controlled substance, or whether it is more likely that the explanation lies elsewhere. At the same time, physicians are not expected to reach a determination about the suitability of a home environment or of the ability of the patient to raise a child. The physician is only asked to make a medical assessment. However, physicians do need to be sensitive to such problems as failure to maintain continuity of prenatal care, which may indicate use of a controlled substance.

### *Where to Now?*

It can be expected that future sessions of the Minnesota Legislature will revisit these issues. There is a clear need for more treatment programs directed specifically to pregnant women. Moreover, there is a pressing need for education about the dangers controlled substances pose to the fetus. What will be the impact when children who have been prenatally exposed to controlled substances enter the public school system? As the Legislature takes up these questions and begins to consider changes to the new statute, the health care community needs to be actively involved in the discussion of these laws, which fundamentally affect the practice of medicine. **MM**

*David Fortney is vice president and general counsel for St. Paul-Ramsey Medical Center, St. Paul, Minnesota.*



## What will you tell her about screening mammography?

Many of your patients will hear about screening mammography through a program launched by the American Cancer Society and the American College of Radiology, and they may come to you with questions. What will you tell them?

We hope you'll encourage them to have a screening mammogram, because that, along with your regular breast examinations and their monthly self examinations, offers the best chance of early detection of breast cancer, a disease which will strike one woman in 10.

If you have questions about breast cancer detection for asymptomatic women, please contact us.



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## MacGibbon from 14

**MacGibbon:** We cover six hospitals and three private offices. We go to Mercy Hospital, Unity Hospital, Midway Hospital, Riverside Medical Center, Fairview Southdale Hospital, and Fairview Ridges Hospital. We are a professional corporation with a business manager and a business and billing office that employs many people.

**Minnesota Medicine:** And you must also own or manage quite a bit of technology such as MRI devices and CT scanners.

**MacGibbon:** We don't own them; we manage them. We own medical equipment in our private offices, but we don't have CT scanners or MRIs in our private offices. The hospitals generally own the CT scanners. One exception is the MRI scanner owned by NetCare. It has a fixed site at Fairview Southdale Hospital now, but it started out as a mobile joint venture service between multiple radiology groups and hospitals.

**Minnesota Medicine:** Do other hospitals send patients to Fairview Southdale for MRI?

**MacGibbon:** No, other participating hospitals use the mobile scanner that comes to their campuses. Generally speaking, when a mobile unit isn't at a given hospital and somebody needs a scan and can't wait until the mobile unit returns, physicians send patients to wherever the mobile unit happens to be or to the fixed site. We have two mobiles and a fixed site within NetCare.

## CT and Ultrasound

**Minnesota Medicine:** How many CT scanners do you have within the system?

**MacGibbon:** Each hospital we service has one CT scanner, and we have two CT scanners at Fairview Southdale.

**Minnesota Medicine:** Do you think CT scanners kicked off the high-tech mania and the beginning of a new phase of radiology?

**MacGibbon:** Yes, CT scanners signaled the beginning of a new phase. Radiology has changed dramatically since 1975. CTs started out primarily as head scanners in the mid-70s, but now we have whole body scanners. Most of our work is non-cranial—chest, abdomen, and pelvic CT scans. In fact, physicians would have a difficult time practicing medicine today without a CT scanner. I know the emergency room physicians would certainly have a problem. It's to the point where sometimes these physicians won't allow you to shut down the scanner for a few hours for preventive maintenance. They can't get by without a CT scanner for four hours.

**Minnesota Medicine:** Describe for us how a CT scanner would be used in an emergency room.

**MacGibbon:** It would be used, for example, on patients

who come to the ER with head trauma, to make sure there isn't acute subdural or intracranial hemorrhage. Or, it's used on stroke patients presenting in the middle of the night to determine whether it's a hemorrhagic stroke or an ischemic stroke. Physicians need to know right away what type of stroke it is so they can decide whether to anticoagulate the patient or not. They don't want to wait 24 hours. A CT scanner would be used in cases of abdominal trauma to look for liver or spleen lacerations or ruptures, or it might be used for chest trauma or aortic dissections. These are just a few of things that we're asked to do at night.

**Minnesota Medicine:** It must be difficult to keep up with the technological advances.

**MacGibbon:** It's very difficult. A good deal of the work we do every day wasn't being done 20 years ago. These are all new technologies that have come on board since I finished my training.

**Minnesota Medicine:** When did ultrasound take off?

**MacGibbon:** Back in the '60s, radiologists were doing very simple ultrasound procedures, such as measuring midlines of the brain. Suddenly in the mid-70s, ultrasound grew by leaps and bounds, and now with Doppler applications, including color Doppler, ultrasound use is escalating again.

**Minnesota Medicine:** What do you do with the ultrasound and Doppler?

**MacGibbon:** Color Doppler is used to display the Doppler flow. It tells us which direction the blood is flowing. It's a technique that helps us better visualize the vessels and visualize where the area of stenosis might be. With Doppler, you can figure out blood flow velocities and determine whether there is a significant stenosis.

## Turf Battles, Reimbursement Battles

**Minnesota Medicine:** Every specialty has both its technical side and its political side. Let's talk about a few of the political problems of radiologists and let's put them in two categories—turf battles and reimbursement battles. Could you take those in order?

**MacGibbon:** Turf battles have been concerning radiology both locally and nationally, maybe more so nationally. These battles reflect a surplus of physicians. When physicians aren't busy doing their own primary specialty, they look for other things to do. Radiologists don't have their own patients; they see referred patients. Other physicians see the patient first, and these physicians may be doing more and more imaging procedures themselves. Cardiologists, for example, are now doing other types of angiography outside the heart, competing with the radiologist. Other physicians are using fluoroscopy and CT scanners to do their procedures and biopsies.

**Minnesota Medicine:** And what about the reimbursement of radiologists?

**MacGibbon:** This concerns us as well. The resource-based relative value scale, which will be implemented fairly soon, is calling for a very drastic reduction in reimbursement of certain physician groups, and radiologists in particular. Radiologists will have their reimbursements cut about 25 percent over a five-year phase-in period.

**Minnesota Medicine:** Haven't the radiologists negotiated a separate relative value scale?

**MacGibbon:** The American College of Radiology negotiated this with Congress and devised our own relative value scale that is based on experience. It was a very lengthy and well-done study. The payment scale went into effect, I believe, about one year ago. It was supposed to be budget neutral minus 3 percent. In other words, we determined the relative value scale for all procedures, figured a correction factor for given locales, and then determined the fees and reduced them by 3 percent. There will be another 4 percent reduction coming April 1 mandated by the COBRA legislation.

### *Malpractice Premiums*

**Minnesota Medicine:** Another problem that disturbs many medical specialists is the malpractice problem. Where do radiologists rank among other physicians in terms of the burden of malpractice premiums?

**MacGibbon:** I don't know exactly where we sit on the scale, but I would guess in the middle of it. We're not at the bottom, and we're not at the top. Certain radiologists are doing more interventional procedures, and they are paying higher premiums. I suspect therapeutic oncologists, for example, have considerably higher rates.

**Minnesota Medicine:** What specific procedures concern you in terms of malpractice? What about mammography or the injection of radioactive iodine?

**MacGibbon:** I'm not aware of many malpractice suits regarding errors of mammography, but mammography has grown tremendously in the last couple years. From the number we're doing, I suspect malpractice premiums will increase considerably in the future. Injecting radioiodine hasn't been a high-risk procedure for diagnostic uses. Of course, there are the risks we've always had—problems with interventional procedures, angiography, missing early cancers in the chest or GI tract.

### *The Demand for Radiologists*

**Minnesota Medicine:** How do you see the manpower situation for radiology? Is it a specialty that attracts a lot of young physicians?

**MacGibbon:** Radiologists are in short supply now. Supply and demand vary from year to year. The number of radiologists in training programs has increased slightly

in the last couple years. About two years ago an additional year was added to the residency training program. Consequently, for one year there were no finishing residents available to be hired. That caused a big demand the following year. We haven't quite caught up with that yet. Long term, I think there's going to be an adequate supply. I talked to the chairman of a radiology department in Florida and asked if they were training too many radiologists and having a hard time placing them.

"Are you kidding?" he said. "I get calls every week. I could place two to three times the number of residents I have."

**Minnesota Medicine:** So there's a growing demand for radiological services?

**MacGibbon:** Yes. The new technologies have increased the number of procedures we do, and, consequently, we need more radiologists. With CT, ultrasound, and invasive procedures, practicing physicians increasingly rely on us to make diagnoses.

**Minnesota Medicine:** I suppose there could be two sides to that demand. The up side being the increased precision and accuracy of the equipment and the down side being defensive medicine.

**MacGibbon:** That's true. We've always considered the skull X-ray as being the one item we all ordered if a patient had a bump on the head, not because you thought you might find a fracture, but because you feared that you might get sued if you didn't. Now, not so much skull X-rays, but a number of procedures are ordered from the emergency room. The ER physicians don't want to admit a patient if they don't have to, and they can't admit a patient unless they have a diagnosis. They also don't want to send somebody home without a diagnosis. Consequently, it becomes very important to come as close to a diagnosis as they can while the patient is still in the emergency room.

### *Riding the High-tech Waves*

**Minnesota Medicine:** During your career you've been riding a series of technological waves—the CT scan, ultrasound, MRI. What do you think the next wave will be? Do you think the wave of demand for radiology will come crashing down?

**MacGibbon:** I'm sure there will be increased use of MRI scans. That's the latest wave, and we're just getting started on that. Beyond that, I don't know what the next wave is going to be or whether the government and the public are going to want to pay for it.

**Minnesota Medicine:** Americans seem to have a ravenous appetite for new and better technology.

**MacGibbon:** They do, but they don't necessarily want to pay for it. Something is going to have to change. If people want all these new technologies, they have to be willing to pay for them.

MM



# MMA ANNUAL MEETING

## *Schedule of Events*

Rochester, Minnesota

May 16-18, 1990

### *Wednesday, May 16*

- 10:00 A.M. - 6:00 P.M.  
General Registration
- 10:00 A.M. - 11:00 A.M.  
PIC Board Meeting
- 11:00 A.M. - 12:00 Noon  
Media Briefing
- 11:00 A.M. - 12:30 P.M.  
MMSC Board Meeting and Lunch
- 12:00 NOON - 1:30 P.M.  
MN Women Physicians Lunch
- 12:30 P.M. - 3:30 P.M.  
MMA Board of Trustees Meeting/Lunch
- 2:00 P.M. - 3:30 P.M.  
MEDPAC Annual Meeting
- 2:00 P.M. - 3:30 P.M.  
County Society Executives Meeting
- 4:00 P.M. - 5:00 P.M.  
Hospital Medical Staff Section Caucus
- 4:00 P.M. - 5:30 P.M.  
Minnesota Academy of Family  
Physicians Caucus
- 4:00 P.M. - 5:00 P.M.  
Young Physicians Section Caucus
- 4:00 P.M. - 5:30 P.M.  
AMA Delegation Meeting
- 6:00 P.M. - 9:30 P.M.  
*Welcome Reception & Light Buffet*  
Simultaneously at Mayowood &  
Mayo Foundation House

### *Thursday, May 17*

- 6:45 A.M. - 5:00 P.M.  
General Registration
- 7:00 A.M. - 7:30 A.M.  
Reference Committee Orientation Breakfast
- 7:00 A.M. - 8:45 A.M.  
Three Simultaneous Caucuses:
- Ramsey
  - Hennepin
  - Greater Minnesota

### *Thursday, May 17 (Continued)*

- 7:30 A.M. - 8:30 A.M.  
Medical Student Section Breakfast Meeting
- 9:00 A.M. - 10:30 A.M.  
MMA House of Delegates (Session I)
- 10:45 A.M. - 12:15 P.M.  
*Awards Brunch* Kahler Plaza
- 12:30 P.M. - 3:00 P.M.  
Reference Committee Open Hearings
- 3:00 P.M. - Until Completion  
Reference Committee Executive Session
- 3:15 P.M. - 4:30 P.M.  
Forum on AMA Affairs
- 3:30 P.M. - 5:00 P.M.  
Tour of Mayo Facilities
- 6:00 P.M. - 7:00 P.M.  
*Pre-Inaugural Champagne Reception*  
Sieben's Building Atrium
- 7:00 P.M. - 12:00 P.M.  
*President's Inaugural Dinner & Dance*  
Radisson Centerplace

### *Friday, May 18*

- 7:00 A.M. - 8:30 A.M.  
MMA Board of Trustees Breakfast Meeting
- 8:30 A.M. - 12:00 Noon  
General Registration
- 8:30 A.M. - 10:15 A.M.  
Two Simultaneous Caucuses:
- Ramsey & Hennepin
  - Greater Minnesota
- 10:30 A.M. - 3:00 P.M. (Includes Lunch)  
MMA House of Delegates (Session II)
- 3:00 P.M. - 3:30 P.M.  
Board of Trustees Organizational Meeting

# Crushing out Smoking Addiction

Robert D. Christensen, M.D.

The Minnesota Medical Association and the Minnesota Coalition for a Smoke-Free Society 2000 are encouraged by recent victories in the fight against tobacco addiction.

- A smoking ban on all U.S. commercial airplane flights took effect February 25 of this year.

- The Metropolitan Sports Facilities Commission refused to extend a lucrative \$2.4 million contract for cigarette advertising at the Metrodome. Signs advertising tobacco inside the dome and on the outdoor marquee will be removed in April 1992. The dome is the first sports arena in the world to turn down a contract extension to a major advertising sponsor. Way to go! Minnesota fans will live to cheer longer.

- As of January 1, Minnesota hospitals and physicians' offices have been required by law to be smoke free.

We are making progress. Our air in Minnesota is purer than it was 10 years ago. We can eat in a restaurant or fly across the country without breathing second-hand smoke. But our goal of a smoke-free society remains elusive.

Every day, 3,000 children in the United States smoke their first cigarette and are on their way to becoming regular smokers. Each day 23 children will be murdered, and traffic accidents will claim the lives of 30 more. Smoking, the most insidious killer, will claim 750 young lives.

As physicians, we are deeply concerned about the danger smoking poses to the life and health of our young people. The MMA is lobbying for state laws that will make it harder for teen-agers to start smoking. A lifelong addiction to nicotine often begins during the teen years when young people are most vulnerable to



"Physicians' opinions carry clout and credibility on this serious health issue."

peer pressure. We want to help teen-agers reach adulthood free of nicotine addiction. During the 1990 legislative session, the MMA will support legislation that would make it illegal to sell tobacco products to anyone under the age of 21 and will support a total ban on cigarette sales from vending machines.

Researcher Jean Forster, Ph.D., of the University of Minnesota, found that children were able to purchase cigarettes in White Bear Lake in full view of adults. In several cases, adults gave youngsters 12 to 15 years old the correct change or helped them when they had difficulty operating the cigarette machines.

Recently, there has been a string of successes on the cigarette vending issue in Minnesota. In January, Bloomington joined White Bear Lake, Chanhassen, Redwood Falls, Kenyon, Northfield, Milaca, and St. Louis Park in enacting a total ban on cigarette vending machines. A partial ban is in effect in St. Paul, New Brighton, Blaine, and Shoreview. The MMA will continue to reject com-

promise solutions that exempt machines in bars or in areas where they can be easily supervised. The MMA also strongly opposes efforts by the Coalition for Responsible Vending Sales to introduce legislation that would void the restrictions adopted in these communities. I urge you to contact your legislators about this appalling anti-health proposal.

Newspapers reported that the hospitality industry was outraged by the loss of jobs and money caused by the vending machine ban in Bloomington. A Bloomington hotel owner said in the *Star Tribune*, "Our cigarette vending sales bring in \$20,000 to \$25,000 a year." Weigh this loss against the loss of lives, jobs, and money caused by smoking:

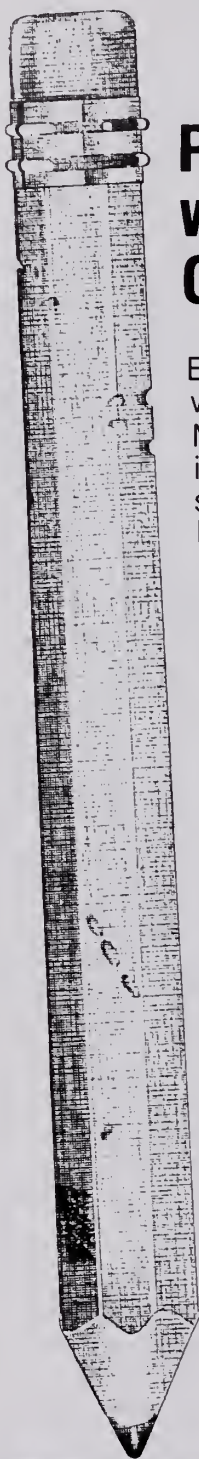
- Each year, 5,000 people in Minnesota die prematurely because of smoking-related illness. These deaths can be prevented.

- If half of those 5,000 people are employed, it means that each year at least 2,500 people in Minnesota lose their jobs *permanently* because of smoking.

- Smoking costs Minnesotans \$710 million each year—\$290 million in health care costs and \$420 million in disability and premature deaths. In Minnesota, the cigarette excise tax raises only \$86 million a year.

We congratulate the Minnesota communities that have voted to protect young people by enacting a total ban on cigarette vending machines. When your community considers this issue, please contact your council member. When the issue of prohibiting the sale of tobacco to anyone under 21 comes before the Legislature this session, please contact your legislator to support the bill. Physicians' opinions carry clout and credibility on this serious health issue. **MM**





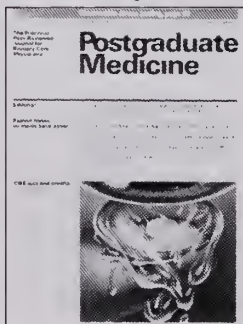
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## YOHIMBINE HCl

**Description:** Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubiaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

**Action:** Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it, however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

**Indications:** Yocon<sup>®</sup> is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

**Contraindications:** Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

**Warning:** Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

**Adverse Reactions:** Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral alpha-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.<sup>1,2</sup> Also dizziness, headache, skin flushing reported when used orally.<sup>1,3</sup>

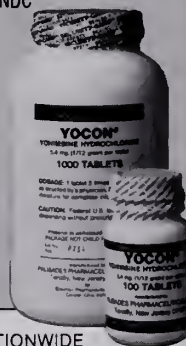
**Dosage and Administration:** Experimental dosage reported in treatment of erectile impotence.<sup>1,3,4</sup> 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.<sup>3</sup>

**How Supplied:** Oral tablets of Yocon<sup>®</sup> 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

### References:

1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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## People and Places Making Medical News

### M M A .....

#### MMA CEO to Resign

Steven D. Carter, chief executive officer of the Minnesota Medical Association since 1986, will resign effective May 1. Carter, former executive director of the Kansas Medical Society, has accepted a position as national director for state and sub-specialty relations for the American Academy of Ophthalmology in San Francisco.

#### Rural Health Bill

The Minnesota Medical Association (MMA) has announced support for the Omnibus Rural Health bill. The bill, introduced by Rep. Roger Cooper, DFL-Bird Island, and Rep. Alan W. Welle, DFL-Willmar, calls for:

- Increasing Medical Assistance for primary care services from the current 50th percentile of 1982 rates to the 50th percentile of 1986 rates.
- Creating a loan forgiveness program—the Rural Physician Education Fund—for medical students agreeing to practice in rural areas.
- Increasing funding of the University of Minnesota's Rural Physician Associate Program (RPAP), which trains medical students for careers in rural health care.
- Creating a high school summer medical intern program that would promote health careers to Minnesota students.

### P e o p l e .....

#### HCMC Peds Chief Resigns

Richard B. Raile, Hennepin County Medical Center's chief of pediatrics for 36 years and medical director for 25 years, retired March 31. Raile has also been a professor of pediatrics at

the University of Minnesota Medical School for 22 years and has served on the Hennepin County Medical Society Board of Directors for six years. In 1989 he received the Charles Bolles Bolles-Rogers Bowl, an annual award given by HCMC to a physician who, according to his or her peers, has made outstanding professional contributions to medical research, achievement, or leadership.

#### Detroit Health Council President

James Kenney, former executive director of the Minnesota Coalition on Health, has been appointed president and chief executive officer of the Greater Detroit Area Health Council, one of the nation's largest health care coalitions. Kenney had been with the Minnesota Coalition—a group of physicians, hospitals, businesses, labor groups, and health insurers—from its inception in 1980 to 1987. Since 1987, he has worked for the software firm Mediquel Systems Inc. in Minneapolis.

#### M-MSMC Chief of Staff

Officials of Metropolitan-Mount Sinai Medical Center, Minneapolis, announced in February that anesthesiologist Richard L. Engwall, M.D., is its new chief of staff. Engwall graduated from the University of Minnesota Medical School.

#### United Hospital Chief

Internist James R. Flink, M.D., has been elected chief of the medical and dental staff of United Hospital in St. Paul. Flink, who received his medical degree from the University of Minnesota, joined United Hospital's medical staff in 1982. He is in private practice with the St. Paul Lung Clinic.

#### Medical Education Director

Children's Hospital of St. Paul has named pediatric endocrinologist Joseph Sockalosky, M.D., as its

director of medical education. Sockalosky, a graduate of the University of Minnesota Medical School, formerly was responsible for the resident and medical student education program at St. Paul-Ramsey Medical Center. Sockalosky also served as director of pediatric endocrinology at St. Paul-Ramsey and was associate chairman of its pediatrics department in 1987.

#### Abbott Board Officers

Officials at Abbott Northwestern Hospital of Minneapolis announced the following new medical board officers elected for 1990: Eugene Ollila, M.D., president; Ronald J. Peterson, M.D., president-elect; Fredarick Gobel, M.D., secretary; and Ernest Lampe, M.D., treasurer. Immediate past president is Richard Sturgeon, M.D.

#### Park Nicollet Accolades

Three Park Nicollet Medical Center physicians received Park Nicollet's first Clinical Excellence in Medicine Awards during a special presentation at the clinic's annual dinner/dance in February. Steven Duane, M.D., oncology, William Gamble, M.D., surgery, and David Williams, M.D., infectious diseases, were chosen for consistently meeting the highest standards of excellence at the medical center.

#### HMO Council Chair

K. James Ehlen, M.D., chairman and chief executive officer of Physicians Health Plan (PHP) of Minnesota, has been named chairman of the Minnesota Council of HMOs. Ehlen replaces Mary Brainerd of Blue Plus as council chair, a position shared on a rotating basis by the 10 council health plans that together provide health care coverage for more than 1 million Minnesotans.



# **PHP Board of Directors**

Charles E. Kelly, M.D., Burton S. Schwartz, M.D., and Mary L. Samoszuk have been elected to the Physicians Health Plan board of directors. Kelly is an internist with Midway Internal Medicine of St. Paul, Schwartz is a Minneapolis internist, and Samoszuk is a consultant and program director for the mental health agency Perspectives. The PHP board consists of 20 directors—eight consumer representatives and 12 provider representatives.

# **P l a c e s**

## **HCMC Health Care Discounts**

Hennepin County Medical Center (HCMC) implemented a year-long pilot program April 1 to provide fee-for-service care to 2,000 uninsured patients in Hennepin County. The program, called Assured Care, will offer primary and specialized services at discounts of 25, 50, or 75 percent, depending on family size and income.

Half of the enrollees will be HCMC patients, with the other half from 10 clinics either operated by or contracted to the county. These clinics will provide primary and preventive care, HCMC will provide emergency and urgent care, hospitalization, and outpatient services, and various clinics will provide dental care.

## **HCMC Tissue Bank**

The Regional Tissue Bank at Hennepin County Medical Center (HCMC) has become the first tissue bank in Minnesota to be accredited by the American Association of Tissue Banks (AATB), and one of only 19 accredited banks nationwide.

Accreditation by AATB is considered the premier standard for tissue banks throughout the country. In order to be accredited, the Regional Tissue Bank had to meet AATB's stringent guidelines regarding retrieval, preservation, storage, and distribution of tissue, according to HCMC officials.

## **Profitable HMO Firm**

United HealthCare Corp., boosted by 17 percent average premium increases, reported a profit in 1989—its first since 1986. United, which manages several HMOs nationwide and Physicians Health Plan and Share Health Plan in Minnesota, posted a \$13.7 million net gain last year, compared with a \$36.8 million loss in 1988 and a \$15.8 million loss in 1987. The firm made \$7.2 million in 1986.

## **Snuffing Out Tobacco Use**

The Minnesota Department of Health has awarded \$500,000 in grant money to projects aimed at preventing tobacco use in the state. The grants went to five local health agencies and one nonprofit group: the Minnesota Coalition for a Smoke-Free Society 2000, Aitkin-Itasca-Koochiching Community Health Services, Clay-Wilkin Community Health Services, the Hennepin County Community Health Department, Winona County Community Health Services, and Quin County Community Health Services. Quin County CHS serves Kittson, Marshall, Pennington, Red Lake, and Roseau counties.

# **I n n o v a t i o n s**

## **Gamma Knife Radiation**

Mayo specialists in neurosurgery and radiation oncology are using a gamma knife to destroy otherwise inoperable brain lesions by focusing 201 beams of radiation on the lesion.

The sixth gamma knife in the United States and the first in the Upper Midwest was recently installed at Saint Marys Hospital in

Rochester, Minnesota. A Mayo gamma knife team performed its first procedure on a patient January 12.

The gamma knife is a large, sphere-shaped helmet that is carefully positioned around a patient's head. The helmet is connected to sources that individually emit thin streams of radiation targeted at the lesion within the patient's brain.

## **Lightweight Dual-chamber Pacemaker**

Medtronic, Inc., of Minneapolis announced in January the first implant of its rate-responsive Elite™ pacemaker, which offers the latest dual-chamber cardiac pacing therapies in a case weighing less than an ounce and a half.

According to Medtronic, the pacemaker was adjusted to the patient's individual needs with a new personal-computer-based programming instrument designed to enhance ease of use. The Elite varies the heart rate in accordance with the demands of the circulatory system while maintaining synchronization between the ventricles and atria.

# **S o c i o e c o n o m i c s**

## **Attracting Rural Docs**

The federal Health Resources and Services Administration (HRSA) will repay student loans up to \$20,000 annually to physicians willing to practice three or four years in Minnesota's Cook, St. Louis, Olmsted, or Pine counties. It will pay up to \$25,000 for doctors willing to serve areas with a large Native American population. HRSA is offering about \$8.8 million nationwide—\$7.8 million for loan repayments and scholarships to doctors and \$1 million for states to use for their own loan repayment programs. Minnesota has no such program, but Rep. Roger Cooper, DFL-Bird Island, introduced legislation in February that would establish loan repayment (see "Rural Health Bill," page 49).

### Teen Pregnancy Rates

Poor rural counties have the highest rates of teen pregnancy in Minnesota, according to a Children's Defense Fund report released in January. Of the 10 counties with the highest rate of births to teen-age mothers as compared with all births, eight were also among the 10 poorest counties. In Cass, Kanabec, and Mahanomen counties, one out of six babies were born to teen-agers—the state's highest rate. By comparison, the rates in Hennepin and Ramsey counties were one in 13 and one in 10, respectively. Stevens County had the lowest rate: one in 19.

Luanne Nyberg, state director of the Children's Defense Fund, said the study shows that teen pregnancy is more closely associated with poverty than with race or urban life. Rounding out the list of 10 counties with the highest rate of teen pregnancy were Aitkin, Beltrami, Clearwater, Mille Lacs, Pine, Red Lake, and Wadena counties, all with a rate of one in seven.

### 'Medigap' Rate Disparity

Annual rates paid by Minnesota seniors for "medigap" insurance, which is designed to close gaps in health care coverage left open by Medicare, vary by more than \$1,000, according to a survey by the Minnesota Department of Commerce. The survey, ordered in January by new Commissioner Thomas Borman, compared rates for the 12 insurance companies that had filed by the end of January. Eagan-based Blue Cross and Blue Shield of Minnesota, except for certain coverage to male smokers, was the least expensive. For example, its "extended basic" coverage for 65-year-old nonsmoking women was \$775 a year. (Blue Cross/Blue Shield was the only company to offer separate rates for men and women, smokers and nonsmokers.) At the high end of the scale for annual extended basic coverage were Combined Insurance of Chicago, charging \$1,850, and Mutual of Omaha, which charges \$1,686.

"Extended basic" insurance includes the following costs not picked up by Medicare: \$148 a day after the 60th day in a hospital, \$74 a day after the 20th day in a skilled nursing home, a \$592 deductible amount for each hospital stay, and 80 percent of prescription drug costs.

### Troubled Nursing Homes

More than half of Minnesota's 446 nursing homes are losing money, according to a report released in February by Care Providers of Minnesota, an association of nursing homes and group homes for the handicapped. Seven nursing homes declared bankruptcy in 1989. The financial crunch is diminishing the quality of care in nursing homes, and association President Rick Carter said the homes caring for the most seriously impaired people were in the most dire financial straits. In light of the survey results, Care Providers asked for \$30 million in additional annual government funds, \$8 million of which would come from state government.

### AIDS Projects

Minnesota Commissioner of Health Sister Mary Madonna Ashton has appointed a task force to help plan support services for people infected with the human immunodeficiency virus (HIV). The 16-member Commissioner's Task Force will advise state officials on a new HIV Services Planning Project. The Minnesota Department of Health recently received federal funding to conduct the project, which will involve planning a comprehensive system of care and support services for HIV-infected people.

The task force will attempt to identify gaps in available services and try to better coordinate them. It plans to develop recommendations by September.

The commissioner also approved funding for three pilot projects aimed at improving support services for HIV-infected people. Sister Ashton has approved almost \$800,000 in grants for three "case management" projects designed to provide better coordination of services and identify service delivery problems for HIV-infected individuals. Funding for the projects was provided by the Minnesota Legislature.

## Medical Research

### Resident Experience vs. Patient Care

The more experienced a hospital's resident physicians (house officers) are, the less time and money a patient will spend there, according to a St. Paul-Ramsey Medical Center study in the February 16 *Journal of the American Medical Association*. But that is not to say a patient's care suffers from less experienced residents, wrote Eugene C. Rich, M.D., of the Department of Medicine at the University of Kentucky College of Medicine, Lexington, Kentucky, and colleagues.

The study of 21,679 discharges from St. Paul-Ramsey during a seven-year period measured patients' costs by the length of their hospital stay and their total hospital charges. The study also defined house staff experience by the month during an academic year patients received care. As the academic year progressed and the house staff grew in experience, the authors found patients' bills dropped an average of \$370 and their time in the hospital declined an average of .43 days per discharge.

Using hospital deaths, readmissions, and nursing home placement as measurements, the study found no connection between residents' experience and the quality of care patients received.

### Alzheimer's Study Program

A federal study of how Medicare can best serve people with Alzheimer's disease and their care givers will



implement a program of services in Hennepin, Ramsey, Anoka, Dakota, and Washington counties. The study, which needs at least 1,000 enrollees, will randomly select half of them to be in the program, whose services will include adult day care, home-delivered meals, transportation, education, and support services. To be eligible, participants must live in their own home or with a relative in one of the five counties and be enrolled in Medicare Parts A and B.

The Minnesota Alzheimer's Consortium, comprising the Wilder Foundation, the Ebenezer Society, the Alzheimer's Association, and Duluth's Miller-Dwan Medical Center, wrote the grant that led to the federal study.

### Group Therapy for Bulimics

Measuring recovery over a limited time period, new research shows group psychotherapy is more effective in curbing binge eating in bulimics than treating them with an

anti-depressant drug. In February's *Archives of General Psychiatry*, a University of Minnesota study found two groups of bulimic women reduced their binge eating 89 percent and 92 percent, respectively. Authors James E. Mitchell, of the Eating Disorders Clinic at the University of Minnesota Medical School, Minneapolis, and colleagues divided 171 women into four different groups—one using group therapy and an anti-depressant; one using only group therapy; one using an anti-depressant only; and one using group therapy and a placebo. The authors concluded the drug therapy added little or nothing to the success rates enjoyed by the group therapy participants.

There were several limitations to the study: researchers relied on self-reports of bulimic behavior from women; the anti-depressant used, imipramine hydrochloride, has more side effects than other, newer anti-depressants; and the drop-out rate

from the study ranged from 25 percent to 42 percent, depending on the group involved.

### Spread of AIDS Slows

The number of new AIDS cases nationwide rose just 9 percent in 1989—compared with a 34 percent increase in 1988 and a 60 percent increase in 1987—according to the Centers for Disease Control (CDC) in Atlanta. Researchers have attributed this slowest-ever increase to safer sex practices since 1984 and effective AZT treatments since 1987, when the drug first became widely available.

The number of new cases among gay and bisexual men was up only 8 percent over 1988 levels, compared with a 27 percent increase among heterosexuals. The CDC reported that the disease is spreading faster among intravenous drug users, newborns, women, and Southerners as compared with the general population.

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## *A Calendar of Continuing Medical Education Courses*

**Provided through the MMA Medical Education Subcommittee on CME Resources** For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

### A P R I L 1 9 9 0

Apr. 5-6 **Annual Obstetrics and Gynecology Update** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3977.

Apr. 6 **ENT Update** St. Paul-Ramsey Medical Center, St. Joseph's Hospital, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3977.

Apr. 6 **Sixth Annual Duluth Heart Conference** The Duluth Clinic/St. Mary's Medical Center; Fitger's Spirt of the North Theater, Duluth, MN. CONTACT: James Brueggemann, M.D., 400 East Third Street, Duluth, MN 55805; 218/722-8364.

Apr. 6-7 **13th Annual Update in Clinical Cardiology** Abbott Northwestern Hospital; Radisson Plaza, Minneapolis, MN. CONTACT: Tim Schuh, CME Office, 14202, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Apr. 8-14 **Laboratory Diagnosis of Fungal Infections** Mayo Medical Laboratories; The Empress Hotel, Victoria, BC. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, MN 55905; 1-800/562-1787.

Apr. 9-13 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

Apr. 13-27 **The Danube River** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116.

Apr. 20-21 **Cutaneous Laser Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, 14202, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Apr. 23-27 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

Apr. 26 **Lasers in General Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, 14202, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Apr. 27-28 **Laser Laparoscopic Cholecystectomy** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, 14202, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Apr. 27-28 **15th Annual Spring Seminar—Minnesota Academy of Physician Assistants** Minnesota Academy of Physician Assistants; Holiday Inn-Town Square, St. Paul, MN. CONTACT: John O'Brien, 2103 Cohansey Boulevard, Roseville, MN 55113; 612/487-1374.

### M A Y 1 9 9 0

May 2-4 **Annual Spring Refresher** Minnesota Academy of Family Physicians; Hyatt Regency Hotel, Minneapolis, MN. CONTACT: Virginia Barzan, 2221 University Avenue SE, Suite 426, Minneapolis, MN 55414; 612/331-2506.

May 9-11 **Marketing and Selling Your Hospital Laboratory** Mayo Medical Laboratories; Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, MN 55905; 1-800/562-1787.

May 11-13 **Bowie Symposium on Von Willebrand's Disease** Mayo Clinic; Mayo Clinic, Rochester, MN. CONTACT: William Nichols, M.D., Hematology Research, Mayo Clinic, Rochester, MN 55905; 507/284-5978.

May 15-28 **Western Mediterranean Air/Sea Cruise** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116.

May 16-18 **Current Concepts in Radiation Therapy** University of Minnesota CME; Mayo Memorial Auditorium, Minneapolis, MN. CONTACT: Continuing Medical Education, University of Minnesota, Box 202, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.



May 18 **Lyme Disease—Clinical Overview and Update** Arthritis Center of Park Nicollet Medical Foundation; Radisson South, Bloomington, MN. CONTACT: Ruth Taylor, 5000 West 39th Street, St. Louis Park, MN 55416; 612/924-2755.

May 18-19 **Laser Angioplasty** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office 14202, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

## JUNE 1990

June 1-2 **Cole Memorial Pediatric Orthopaedic Seminar** Shriners Hospital; Shriners Hospital, Minneapolis, MN. CONTACT: Lyle Johnson, M.D., Chief of Staff, Shriners Hospital, 2025 East River Road, Minneapolis, MN 55414; 612/339-6711.

June 1-2 **Morphology of Body Fluids** Mayo Medical Laboratories, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, MN 55905; 1-800/562-1787.

June 4-8 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

June 11-13 **Partners in Managing Type II Diabetes** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

June 20-22 **Progress in Cancer Surgery** Department of Surgery, University of Minnesota Medical School; Willey Hall, Minneapolis, MN. CONTACT: CME Office, University of Minnesota, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

June 20-22 **54th Annual Course Progress in Cancer Surgery** Department of Surgery, University of Minnesota, Minneapolis, MN. CONTACT: CME Office, University of Minnesota, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

June 21 **Lasers in General Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, 14202 Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

June 21-24 **Current Topics in Laboratory and Clinical Genetics** Mayo Medical Laboratories, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, MN 55905; 1-800/562-1787.

June 22-23 **Annual Critical Care Medicine Conference** St. Paul-Ramsey Medical Center; Holiday Inn Town Square, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3977.

June 22-23 **Laser Laparoscopic Cholecystectomy** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, 14202 Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

June 25-29 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

June 29-July 12 **Europe** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116.

## JULY 1990

July 1-14 **Leningrad, Moscow, Russian Rivers, and Lakes Cruise** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116.

July 6-22 **Scandinavia, Russia** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116.

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**April 2**

**Fourth Annual Kerkof Memorial Lecture, "Nonpharmacologic and Pharmacologic Strategies for Treating Hypertension, including Potassium...a Legacy from Prehistoric Times,"** presented by Louis Tobian, Jr., M.D. - Metropolitan-Mount Sinai Medical Center Medical Staff Quarterly Meeting - Marriott City Center - 5:30 p.m.

**April 24**

**Quality Update** - presented by Kenneth Dedeker, M.D. - River Valley Clinic, Hastings, MN - 6:30 p.m.

**April 27**

**Emergency Medicine Services Update** - University of Wisconsin, River Falls, WI - 4:00 to 9:00 p.m.

**May 2**

**"The Kidney in Rheumatic Disease,"** Co-sponsored with the Arthritis Care Program of Metropolitan-Mount Sinai Medical Center - Orthopaedic Learning Center - Metropolitan-Mount Sinai Medical Center - 4:00 to 8:00 p.m.

**May 9**

**Cardiopulmonary Resuscitation (CPR)** - Heilicher Auditorium, Metropolitan-Mount Sinai Medical Center/Phillips - 6:00 p.m.

**May 15**

**Advanced Cardiac Life Support (CPR)** - Metropolitan-Mount Sinai Medical Center - Co-sponsored with Cardiac Care Centers - Orthopaedic Learning Center - 5:30 to 9:30 p.m.

**May 22**

**Advanced Cardiac Life Support (CPR)** - Metropolitan-Mount Sinai Medical Center - Co-sponsored with Cardiac Care Centers - Orthopaedic Learning Center - 5:30 to 9:30 p.m.

**May 29**

**Advanced Cardiac Life Support (CPR)** - Metropolitan-Mount Sinai Medical Center - Co-sponsored with Cardiac Care Centers - Orthopaedic Learning Center - 5:30 to 9:30 p.m.

For Further information, contact the Medical Education Office, Medical Affairs Division, Health One (612) 574-7895 or call toll-free 1-800-343-DOCS

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**Family Physician** wanted to join four physicians, one nurse practitioner, FP group practicing in two offices in Pine River and Pequot Lakes. Competitive salary. No ob. No HMOs. Rural area with outdoor recreational opportunities. Rotate hospital visits, emergency call; adequate free time. Call or write: C.R. Pelzl, M.D., Pine and Lakes Clinics, PO Box 88, Pine River, MN 56474; 218/587-4416. (R)

**Physician: GP/FP/EM** seeks locations to cover on weekends as locum tenens. Board-certified. FP. Lic. Minn. Write: Box 35132, Minneapolis, MN 55436. (R)

**Wausau Medical Center** is seeking BE/BC individuals in the following specialties: cardiology, dermatology, family practice, infectious disease, obstetrics/gynecology, pediatrics, and rheumatology. Modern clinic facility located across the street from modern, 300-bed hospital. Full partnership in three years. Easy access to lakes, woods, and mountains. Write (including CV) to: D.K. Aughenbaugh, M.D., Medical Director, Wausau Medical Center, 2727 Plaza Drive, Wausau, WI 54401. (R)

**Family Physician:** Dynamic 13-physician, three-office, single-specialty practice in northwest Minneapolis suburbs seeking additional associate, BE/BC; ob available. Competitive salary, full benefits, reasonable call and hospital rounds schedule. Contact: Dr. Ken Kephart, Northwest Family Physicians; 612/476-6776. (\*R)

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**Mankato Clinic, Ltd.** is seeking BE/BC physicians in the following specialties: allergy, dermatology, invasive cardiology, oncology, urology, ophthalmology, and general internal medicine. The Mankato Clinic is a 38-doctor multispecialty group practice in south-central Minnesota with a trade area population of 150,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information, call: Roger Greenwald, Administrator, or Dr. B.C. McGregor, 507/625-1811, or write 501 Holly Lane, Mankato, MN 56001. (R)

**Family Physician** needed to join group of five family physicians in St. Peter, Minnesota, population 9,000, located one hour south of Minneapolis. Contact: Curt Stolee, M.D., or D.A. Nygard, Administrator, St. Peter Clinic, Ltd., 622 Sunrise Drive, St. Peter, MN 56082; 507/931-2110. (R)

**Bemidji, Minnesota:** Excellent opportunities for well-trained physicians. We are seeking board-certified/board-eligible physicians in orthopedic surgery, family practice, ophthalmology, pediatrics, and otolaryngology to join a young 24-physician multispecialty group practice located in northern Minnesota. Competitive salary guarantee plus incentive first year and excellent benefits. An excellent opportunity for a physician to enjoy practice in the center of hunting, fishing, and clear air. Please respond with CV to: C.C. Lowery, Administrator, Bemidji Clinic-MeritCare, 1233 34th Street NW, Bemidji, MN 56601; 218/751-1280. (R)

**Outstanding Opportunity for a BE/BC Family Physician** to join a progressive medical community with eight physicians oriented to family practice. Details will be given by contacting: Dr. Tim Schmitt, Wadena Medical Center; 218/631-1360, or Jim Lawson, Administrator, Tri-County Hospital, Wadena, MN 56482; 218/631-3510. (R)



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Excellent full-time and part-time positions offering competitive salaries, benefits and paid malpractice. Work in a challenging environment for one of the oldest and largest multi-specialty practices in the Midwest. This staff model HMO of 32 years currently serves 250,000 members. 15 clinic locations strategically located throughout Minneapolis/St. Paul offer a wide variety of practice and location choices.

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curriculum vitae to:  
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Director of Physician Services,  
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2829 University Avenue S.E.,  
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**St. Cloud**—Minnesota's fastest growing city—family practice physician, two pediatricians, two ob/gyns, BE/BC to join supportive primary care staff in a growing, successful, and innovative prepaid practice. New clinic facility. Full range of fringe benefits (competitive salary, liberal vacation, two weeks' education leave, retirement fund, etc.). Contact: Physician Services, Central Minnesota Group Health Plan, 1245 15th Street North, St. Cloud, MN 56303; 612/253-5220. An equal opportunity employer. (R)

**Waseca, Minnesota**: Family practice physician to join four family practitioners. Population 8,000. One hour south of Burnsville Center; lakes; industry. Salary negotiable. Clinic-adjacent hospital. Ample free time to enjoy family life. Contact: James W. Dey, M.D., or Ruth Hawker, 501 North State Street, Waseca, MN 56093; 507/835-3110. (R)

**Immediate Opportunity for Internist or Family Practitioner** in north-suburban area. Three primary care physicians in well-established practice. Competitive base salary plus incentive pay. Location next to Brookdale Shopping Center. Excellent benefits, which include pension, profit sharing, and malpractice insurance. Contact: Duane Orn, M.D., Northport Medical Center, 5415 Brooklyn Boulevard, Brooklyn Center, MN 55429; 612/533-8666. (9/89-R)

**Locum Tenens** physicians needed. Physicians and locations coordinating services. Write to: Margaret Carse, MED Professional Resource Search, PO Box 35215, Minneapolis, MN 55435. (10/89-R)

**Wholesale Life Insurance**—No front load and no surrender charge. Example: 45-year-old ns male, \$500,000. First-year premium—\$4,000. First-year guaranteed cash value—\$3,526. Offered by Ameritas Life Insurance Corp., a hundred-year-old Best's rated A+ (superior) company. For further information contact: Greybull Insurance Services, 1313 5th Street SE, Minneapolis, MN 55414; 612/379-3860. (\*10/89-R)

**Radiologist**: A three-physician radiology group is seeking a fourth radiologist with experience and interest in interventional radiology. Dickinson County Hospitals is a progressive, 126-bed, two-hospital system located in Iron Mountain, Michigan's Upper Peninsula. We have a service-area population of over 45,000. Contact and/or send resume to: Drs. Specht/Shampo/Manzano, Radiology Department, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4565.

2-5/90

**Family Practice**: Physicians seeking a BE/BC family practice physician for the Norway, Michigan, service area. The physician would have the option of joining one of the existing practices and/or setting up his/her own practice. Anderson Memorial Hospital is a part of Dickinson County Hospitals and has a service-area population of over 45,000. Contact: Dr. Paul Hayes, Anderson Memorial Hospital, Main Street, Norway, MI 49870; 906/563-9243, or office 906/563-9255. 2-5/90

**Family Physician or Internist**: Busy family practice/industrial practice located on the beautiful North Shore of Lake Superior. Outdoor activities abound: hiking, skiing—xc and downhill—fishing, etc. Two-physician practice is looking for a third physician for a rewarding practicing. VA nursing home is a near future reality. Contact: Jon Ward, Manager, Silver Bay Clinic, Ltd., Silver Bay, MN 55614; 218/226-4431. (12/89-R)

**Medical Equipment for Sale**: Medical equipment, furniture, and supplies to adequately furnish a one- to two-doctor medical practice. All equipment is in excellent and well-maintained condition. Equipment will furnish four complete exam rooms/emergency room, laboratory, X-ray room, business office, receptionist area, and waiting room. Laboratory includes ZF-5 Coulter Analyzer and binocular microscope. X-ray equipment includes 300 ma X-ray machine and automatic processor. Must see to appreciate. Very reasonably priced. For an appointment to see equipment or for a list of the equipment, please send inquiries to: Minnesota Medicine (837), 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414. 6-6/90

**Mankato:** FP partner to join four board-certified family physicians, ages 31-41, in fast-growing, full-range practice, includes ob. Population 40,000+. Seventy miles to Twin Cities. Four colleges nearby. 90+ physicians on hospital staff. Academic appointment available. Call: Tony Giefer, M.D. 507/387-8231. (1/90-R)

**Urgent Care/Primary Care** physicians for over 90 group positions in metropolitan Phoenix/Tucson, Arizona. Excellent compensation/partnership opportunities. Other quality positions nationwide. Send CV or call: Mitch Young (MM), PO Box 1804, Scottsdale, AZ 85252; 602/990-8080. (\*1/90-R)

**Family Practice—Hospital-Sponsored Clinic Opportunity:** Dynamic growth-oriented hospital in beautiful north-central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus, and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435; 612/835-5123. (R)

**Family Physician, BC/BE** wanted to join three board-certified MDs in well-established, expanding group practice. Enjoy a progressive, rural city within easy reach of St. Cloud and Minneapolis. Contact: Dr. Jim Mohs, Melrose Clinic, 603 West Main Street, Melrose, MN 56352; office: 612/256-4228; home, 612/256-3488. (R)

**Exciting Pediatric Opportunity:** Full or part time. East-metro practice offering stimulating combination of primary care, teaching, and consultative services. Excellent salary and benefits. Inquiries to: Ruth at 612/777-8211. (R)

**Family Physicians:** Well-established south suburban Minneapolis family practice group seeks associates part/full time to staff day clinic. Excellent call schedule, salary, and fringe benefits. Also seeking locum tenens to staff PT/FT Urgent Care Centers and/or day clinic. Contact: Administration, Family Physicians, P.A., 612/435-4125, or send inquiries to Suite 100, 14050 Nicollet Avenue South, Burnsville, MN 55337. (\*9/89-R)

**Psychiatrist for Rocky Mountain City:** An impressive Rocky Mountain community in Montana seeks psychiatrist for well-managed mental health clinic. Opportunity to succeed the present medical director exists within the next two to three years. Position includes both patient care and program development. Community population is over 80,000 with two modern hospitals. Liberal financial package

offered. For more information call: Gwyneth Anderson at 1-800/221-4762; or write to: E.G. Todd Associates, 535 Fifth Avenue, Suite 1100, New York, NY 10017.\*1-4/90

**Internist/Family Practice:** Available July, 1990. Accredited ambulatory care facility provides medical services to student clientele. Full-time, 11-month position, competitive salary/benefit package and 40-hour week. Qualifications: M.D./D.O. degree, ability to obtain Illinois license, current DEA registration, and board eligible/certified. Search continued until position filled. Contact: Glenn Weiss, Medical Director, Student Health Service, Illinois State University, Normal, IL 61761; 309/438-8655. Women and minorities are encouraged to apply. Affirmative action/equal opportunity employer. 3-4/90

**Lutsen, Minnesota—Townhome for Sale:** Ski in/ski out at Midwest's premier ski area. Luxurious two-bedroom with deck, fireplace, vaulted ceiling, and skylights. Complete kitchen. Exceptionally furnished. \$119,000 with attractive financing. Rental management available. Other units from \$71,900 to \$185,000. Call: John Hastings, Ryan Development, Inc., 612/941-9455. 3-4/90

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**BE/BC Family Physician:** Excellent opportunity to join well-established, progressive 20-physician multispecialty group located in an economically sound community of 20,000 (drawing area of 30,000), 65 miles south of the Twin Cities. Full membership after one year. Competitive salary and fringe benefit package. Contact: Ed Durst, M.D., or Terry Tone, Administrator, 134 Southview, Owatonna, MN 55060; 507/451-1120. (2/90-R)

**Orthopedic Surgeon:** A progressive, 126-bed, two-hospital system is seeking an orthopedic surgeon to join an established practice in the Iron Mountain area of Michigan's Upper Peninsula. Must be BE/BC. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Dr. Roberts will guarantee \$250,000 plus malpractice insurance, office space, CME, vacation, and relocation expenses. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4500. \*2-4/90

**Dermatologist, Psychiatrist, Allergist, Internal Medicine, Family Practice:** A progressive, 126-bed, two-hospital sys-

tem is seeking the above specialties to establish practices in the Iron Mountain area of Michigan's Upper Peninsula. Must be BE/BC. Located 100 miles north of Green Bay, Wisconsin. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Diagnostic capabilities include a CT scanner, CO<sub>2</sub> laser, and a fully staffed special diagnostic department. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4500. \*2-4/90

**Ophthalmologist** to start part time and work into full-time practice. Downtown Minneapolis. Call: 612/332-7745. (1/90-R)

**Urgent Care:** Primary Care physician wanted, full-time, part-time, reasonable hours, 10 a.m. to 8 p.m., no call, competitive salary, excellent benefits, excellent back-up, board prepared required. Contact: Steve Sterner, M.D., Director, Urgent Care, Hennepin County Medical Center, 701 Park Avenue South, Minneapolis, MN 55415; 612/347-5683. 2-4/90

**Pediatrician:** Gillette Children's Hospital is seeking a pediatrician who is a graduate of an accredited pediatric residency program in the United States anticipating board certification by 1992 to provide inpatient and outpatient



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Worthington, MN 56187  
Phone: 507-372-2921

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pediatric care in a specialty hospital-based interdisciplinary care model for children with disabilities and chronic care needs. This is a new position that will join the hospital-based practice with an existing chronic care developmental pediatrician and a pediatric rehabilitation medicine specialist as well as pediatric orthopedists, pediatric neurologists, and other pediatric subspecialties. Gillette Children's Hospital is affiliated with Minneapolis Children's Medical Center and provides specialty care to children who have cerebral palsy, myelomeningocele, head injury, ventilator dependencies, epilepsy, and orthopedic surgical needs. Send CV and letter to: Medical Director, Gillette Children's Hospital, 200 East University Avenue, St. Paul, MN 55101.

2-4/90

**BC/BE Family Physicians:** Full-time or part-time. Progressive community clinic, competitive salary and benefits, no ob, no call. Contact: Gordon Lester, M.D., West Side Health Center (La Clinica), 153 Concord Street, St. Paul, MN 55107; 612/222-1816.

2-4/90

**Positions Available in Family Practice, Internal Medicine, Obstetrics/Gynecology, General Surgery, and Pediatrics:** 28-physician multispecialty clinic seeking additional physicians in FP, IM, Ob/Gyn, GS, and Peds departments. Interstate Medical Center offers a competitive salary, comprehensive benefits, and the support and team ap-

proach of a multispecialty environment. Red Wing is a midsized community along the bluffs of the Mississippi River only 40 miles from the Minneapolis/St. Paul area. Area highlights include an excellent school system, a growing cultural environment, water recreation, skiing, and an active business climate. Red Wing has all the benefits of a metro area in a serene setting. For additional information, please call or send CV to: Don Bruns, M.D., Highway 61 West, Red Wing, MN 55066; 612/388-3503. \*3-5/90

**Internist** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809.

(\*3/90-R)

**Minnesota Lakes and Trees:** Family physician to join five others in progressive multispecialty group including internal medicine and surgery. Outstanding 42-bed district hospital with 130-bed long-term care facility. Excellent schools and services with easy access to metro area. Guaranteed salary, full benefits, and bonus. Position available immediately. For confidential consideration and further information, contact: Mary Jo Cordes, MDsearch, PO Box 21507, St. Paul, MN 55121. Call collect: 612/454-7291.

3-5/90

## Mankato Clinic, Ltd.

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42-doctor multispecialty group practice in south-central MN with trade area pop. of 150,000. Guaranteed salary 1st year. Incentive thereafter with full range of benefits. Liberal time off.

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## Urgent Care

Opportunities available for BC/BE pediatricians and 3rd year pediatric residents to work with Group Health Pediatricians in our Urgent Care Clinics. Group Health is one of the largest and oldest multi-specialty practices in the Midwest. Primary provider group for one of the most successful HMOs in the country. Choose your hours from evening and weekend schedules. Varied locations include in-house lab and x-ray.

Please send curriculum vitae to: Judy Meath,  
Director of Physician Services,  
Group Health, Inc.,  
2829 University Avenue S.E.,  
Minneapolis, Minnesota 55414



**Family Practitioner** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809. (\*3/90-R)

**Primary Care Physician:** Marshfield Clinic is seeking a primary care physician to join its expanding seven-member Emergency Medicine Department. Emergency medicine, urgent and ambulatory care, plus supervision and training of ER staff contribute to a very stimulating practice environment. More than 26,000 ER visits and 13,000 ambulatory care visits annually. Specialists representing all branches of medicine and surgery provide support care and services. Marshfield Clinic is a private group practice consisting of 350 physicians and is physically adjacent to Saint Joseph's Hospital, a 525-bed acute care teaching facility. Send CV to: John P. Folz, Assistant Director, Marshfield Clinic, 1000 North Oak Avenue, Marshfield, WI 54449 or call collect at 715/387-5181. \*1-4/90

**General Internist:** Marshfield Clinic, a multispecialty group practice with 350 physicians, is seeking BC/BE general internists to join its 30-member section in Marshfield and three expanding regional centers in northwestern and north central Wisconsin. An internal medicine residency program, University of Wisconsin Medical School affili-

ation, and Medical Research Foundation contribute to a very stimulating practice environment. Positions offer strong economic stability combined with exceptional recreational, cultural, and educational opportunities. Starting salaries up to \$92,100 with salary in two years up to \$116,400. Fringe benefit package is outstanding. Send CV to: David L. Draves, Director, Regional Development, 1000 North Oak Avenue, Marshfield, WI 54449, or call collect at 715/387-5376. \*1-4/90

**Family Practice, Radiology, Ob/Gyn, Internal Medicine, Oncology/Hematology, Non-invasive Cardiology,** and other specialties needed for small and mid-sized towns in New Mexico and the Sunbelt and inter-mountain regions. Excellent facilities and competitive remuneration packages combined with good schools, outdoor recreation, and beautiful locations to provide a quality lifestyle. All inquiries are fully confidential. Call: Phyllis or Bruce Moffitt at 505/898-1114, or send CV to: CPS, PO Box 1163, Corrales, NM 87048. 1-4/90

**Family Practitioner:** BC/BE family practitioner to join a 20-person family practice department that is part of a 43-person multispecialty group located in the northern suburbs of Minneapolis. Offers suburban living with easy access to metro amenities plus a full range of four-season recreation. Highly competitive guaranteed salary; exceptional benefit package. Respond with CV to: Richard Bertie, M.D., 9055 Springbrook Drive, Coon Rapids, MN 55433 or call 612/780-9155. \*1-4/90

**Family Physician** needed within the Twin Cities metro area. One night on call per week; no weekend call. Guaranteed income, paid malpractice insurance. Woodville, Wisconsin. Call: Tee Heiser, 715/698-2611 or Don Hagen, 715/698-2660. 1-4/90

**Quality Childcare** in your home. Summer or year-round nannies. College educated. Personally interviewed. Contact: Rebecca's Nanny Agency, 3020 SE Lake Victoria, Alexandria, MN 56308; 612/763-4610. 2-5/90

**Wisconsin—Family Practitioner Needed** by progressive and growing group practice in west-central Wisconsin city of 55,000. Ninety miles from Minneapolis/St. Paul. Primarily prepaid practice with large component FFS. Highly competitive salary with excellent fringe benefits. Practice high-quality care in a good recreational area. Send CV to: Stuart Lancer, M.D., 1030 Regis Court, Eau Claire, WI 54701; 715/836-8552. \*2-5/90

**Orthopedic Library:** 1. *JBJS—American and British—1953-88*, inclusive; 2. *Clinical Orthopedics*, Vol 51-220; 3. *Orthopedic Clinics of North America*, 1970-89. If interested please call: 712/277-7686. 2-5/90

**Family Physician and General Surgeon** BC/BE to join progressive 20-physician multispecialty group practice. Ad-

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vantages of rural setting with metropolitan practice style, 25 miles from Minneapolis. Group has excellent reputation and large geographical referral area. Our newly expanded facility is adjacent to a 110-bed hospital. Comprehensive benefit package with excellent remuneration. For more information, contact: Bruce Hoggarth, M.D., or Bob Wilcox, Administrator, Lakeview Clinic, Ltd., 424 State Highway 5 West, Waconia, MN 55387; 612/442-4461 or 612/446-1295. 2-5/90

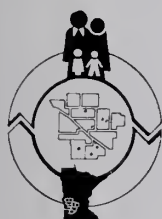
**Family Physician:** Excellent opportunity for BC/BE family physician in well-established suburban group of six. Good diversity of patient population. Superb relationship with consultants in progressive community hospital. Competitive salary/fringes. Opportunity for early partnership. Send resume or contact: Dr. Marv Brooks, Douglas Drive Family Physicians, PA, 3501 Douglas Drive North, Minneapolis, MN 55422; 612/533-2721. 2-5/90

**Ob/Gyn, Family Practice, Internal Medicine, Pediatrics:** Several attractive opportunities in *Michigan, Wisconsin, and Indiana* (many on lakes) for BC/BE physicians. Contact: Bob Strzelczyk to discuss your practice requirements and these positions. *Strelcheck & Associates, Inc.*; 12724 North Maplecrest Lane; Mequon, WI 53092; 1-800-243-4353. \*2-5/90

**Rheumatologist:** 115-physician multispecialty clinic in the Fox River Valley of northeastern Wisconsin desires a BC/BE rheumatologist to join a department of three BC rheumatologists. Two-year guarantee plus comprehensive benefit package offered. This area, which encompasses Appleton, Neenah, and Oshkosh with a combined population of 300,000+, offers a superb recreational, cultural, and family environment in which to practice. For information please call or write: Roger Rathert, M.D., La Salle Clinic, 411 Lincoln Street, Neenah, WI 54956; 414/727-2702. 2-5/90

**Internist—Great Opportunity!** Very busy, young solo internist seeking ambitious associate. Family-oriented community on Lake Winnebago with a population of 40,000. No HMOs or PPOs. A unique opportunity for someone who is genuinely interested in internal medicine and in its subspecialties. An interest in critical care would be of importance. Send CVs to Michael Sergi, M.D., 14 North Main Street, Fond du Lac, WI 54935. 3-6/90

**Minneapolis, Minnesota:** Suburban practice, just 10 minutes from downtown. Multispecialty group with 25 family practice physicians has an excellent opportunity available. Call is one in 25 weekdays and one in four weekends (one day); full day off during week, excellent compensation, and unparalleled benefits program. Call: Robert Hovda, M.D.,



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Send curriculum vitae and references to: Bunny Iverson, Director of Physician Recruitment  
Affiliated Medical Centers, 101 Willmar Avenue SW, Willmar, MN 56201  
612-231-6366



612/788-9601, or write: Columbia Park Medical Group, #480, 6200 Shingle Creek Parkway, Brooklyn Center, MN 55430. 3-6/90

**Family Practice:** Family practice physician needed to join an established 14-physician state-of-the-art clinic in a ranching community in South Dakota. Competitive salary guaranteed, plus generous tuition reimbursement-housing-transportation bonuses offered. Malpractice insurance covered. Limited call. Flexible schedule. Outdoor recreation abounds, including hunting, fishing, boating, skiing, and golfing. Cultural opportunities: Allied Concert Series programs. Send resume or inquiries to: Helen S. Lindquist, Administrator, Five Counties Hospital and Nursing Home, PO Box 479, Lemmon, SD 57638; 605/374-3871. 3-6/90

**Central Plains Clinic, Ltd.,** a 70-physician multispecialty group, is seeking BC/BE physicians in the following specialties: dermatology, infectious disease, internal medicine, neurology, and otolaryngology. Central Plains Clinic is located in Sioux Falls, South Dakota, a progressive regional tertiary care medical center with a very favorable tax climate. Guaranteed first-year salary with incentive thereafter along with full benefit package. Contact: Michael R. Ferrell, M.D., Central Plains Clinic, Ltd., 2727 South Kiwanis Avenue, Sioux Falls, SD 57105; 605/331-3490. \*3-6/90

**Small Hospital** 45 minutes west of Minneapolis has noted geriatric program. First-year minimum salary of \$50,000, plus 37 percent adjusted revenues, four weeks' vacation, two weeks' CME, 401(K) pension plan, malpractice. Lakeside community. Call: Wanda Parker at 1-800/221-4762, or collect 212/599-6200. \*4-7/90

**Small, Progressive Hospital** in southwestern Iowa seeking third family practice physician. First-year minimum income guarantee \$70,000, plus benefits. Omaha, Nebraska, within hours' drive. Specialists from Omaha provide clinics/backup. Call: Wanda Parker, 1-800/221-4762, or collect 212/599-6200. E.G. Todd Associates, 535 Fifth Avenue, Suite 1100, New York, NY 10017. \*4-7/90

**Family Practice, Internal Medicine, Pediatrics, Urology, Obstetrics and Gynecology, Dermatology, and Orthopedics** practice opportunities available at the Faribault Clinic. The Faribault Clinic is a multispecialty group practice of 14 physicians. Faribault is located 50 miles south of Minneapolis on I-35. For more information contact: Ray W. Wood, M.D., or Ken Smith, Administrator, 924 NE 1st Street, Faribault, MN 55021; 507/334-3921. (4/90-R)

**Forest Lake Doctor's Clinic** is seeking a BC/BE family physician, pediatrician, ob/gyn, and internist to join 10-physician multispecialty group. Located 25 miles north of Minneapolis-St. Paul, in progressive community, with excellent schools, many beautiful lakes, recreational activities, golf, fishing, boating, skiing. Local hospital directly across street.

Contact: Dr. Harvey J. Frank or Dr. Doug Sill, 121 SE 11th Avenue, Forest Lake, MN 55025; 612/464-7100. (4/90-R)

**Psychiatric Practice for Sale** in Hutchinson, Minnesota. Completely modern facility. Approximately two-thirds hospital work (in a 12-bed mental health unit), one-third outpatient cases. Must be BC/BE. Patient base covers a wide area—from the Twin Cities to South Dakota. For more information contact: Eileen Fluegel, 612/587-8457. (4/90-R)

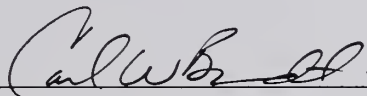
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MMA Annual Meeting  
Rochester—May 16-18

*Special Feature:*

**HEALTH CARE  
ACCESS REFORM**

MAY 1990

V. 73 N. 5



# "Fifty Percent Of All Patients With A Diagnosis Of Cancer, Are Now Being Cured."



*Gail Bender, M.D.  
Oncologist*

Most patients who hear they need to see an oncologist, assume they have a fatal disease. As physicians, we know that at least 50 percent of cancer patients can be cured. For other patients, quality and duration of life can be improved and extended following a cancer diagnosis.

With the incidence of cancer increasing, we are called upon to use all the resources at our disposal to treat these patients. Advancements in earlier detection have made it possible to catch more cancers at the curable stage.

One of the best resources is a competent, qualified cancer care team. Methodist Hospital, long recognized as a leader in cancer care, has refined the concept of the cancer care team. The oncologist is "captain" of the team and coordinates care among other team members. Physicians, nurses, technologists, therapists, pharmacists, social workers and others address the magnitude and multitude of problems a cancer patient can face. Continuous communication with referring physicians assures continuity of care.

The entire team helps patients and their families adjust to the emotional aspects of the disease and overcome physical limitations or changes inherent in some cancers. Our ultimate goal, of course, is to cure when possible. However, when that is not possible, we work to improve the quality of life and extend the duration of life after cancer is diagnosed.

If you would like to discuss the cancer care team concept or the program at Methodist, contact me through Cancer HelpLine, 932-5700.

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# Minnesota Medicine

A JOURNAL OF CLINICAL AND HEALTH AFFAIRS



## COVER

*The Minnesota Medical Association's* 137th annual meeting will convene in Rochester, Minnesota, May 16 through May 18 (see schedule of events, page 4). This month's cover, courtesy of the Rochester Convention and Visitors Bureau, pictures the Harwick, Mayo, Plummer, Hilton, and Gugenheim buildings of the Mayo Clinic, which for 75 years has been the heartbeat of Rochester—and the medical community worldwide.

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## Question of the Week:

# How do you find out what your medical practice is worth?

This is a question many physicians either put off or just don't think about at all. That's normal. But it's a question that is important to you as a business professional as well as a medical professional.

You may be an individual in a private practice or part of a partnership, clinic or hospital. Whatever your situation, you can probably think of a variety of circumstances (retirements, outright sale, new buy-in, first buy-out or business planning, for example) where the transaction price of your practice needs to be determined – you may be in such a situation now.

Putting a value on your practice is a task requiring the consideration of not only facts and figures (the hard assets), but intangibles (soft assets) such as practice and professional goodwill. In many practices goodwill is the most valuable asset.

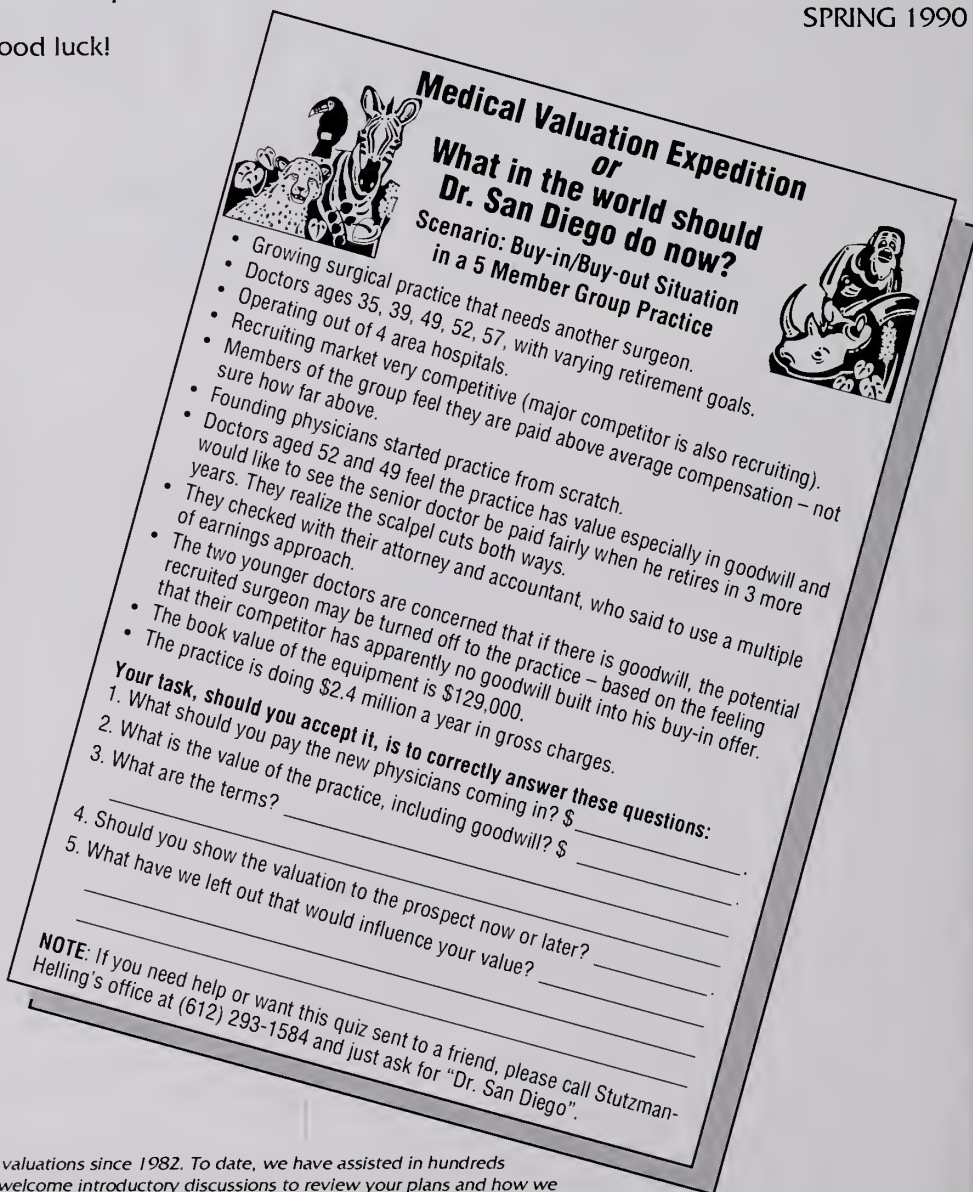
And now for the quiz of the week. Join us on a "Medical Expedition" to help Dr. San Diego solve her buy-in/buy-out problem. Read the scenario, then answer the fill-in-the-blank questions.

Good luck!

Stutzman-Helling's

# Practice Valuation Illustrated

SPRING 1990



**Medical Valuation Expedition**  
**or**  
**What in the world should Dr. San Diego do now?**  
**Scenario: Buy-in/Buy-out Situation in a 5 Member Group Practice**

- Growing surgical practice that needs another surgeon.
- Doctors ages 35, 39, 49, 52, 57, with varying retirement goals.
- Operating out of 4 area hospitals.
- Recruiting market very competitive (major competitor is also recruiting).
- Members of the group feel they are paid above average compensation – not sure how far above.
- Founding physicians started practice from scratch.
- Doctors aged 52 and 49 feel the practice has value especially in goodwill and would like to see the senior doctor be paid fairly when he retires in 3 more years. They realize the scalpel cuts both ways.
- They checked with their attorney and accountant, who said to use a multiple of earnings approach.
- The two younger doctors are concerned that if there is goodwill, the potential recruited surgeon may be turned off to the practice – based on the feeling that their competitor has apparently no goodwill built into his buy-in offer.
- The book value of the equipment is \$129,000.
- The practice is doing \$2.4 million a year in gross charges.

**Your task, should you accept it, is to correctly answer these questions:**

1. What should you pay the new physicians coming in? \$ \_\_\_\_\_
2. What is the value of the practice, including goodwill? \$ \_\_\_\_\_
3. What are the terms? \_\_\_\_\_
4. Should you show the valuation to the prospect now or later? \_\_\_\_\_
5. What have we left out that would influence your value? \_\_\_\_\_

**NOTE:** If you need help or want this quiz sent to a friend, please call Stutzman-Helling's office at (612) 293-1584 and just ask for "Dr. San Diego".

Our firm has specialized in medical practice valuations since 1982. To date, we have assisted in hundreds of valuation-based transactions. We always welcome introductory discussions to review your plans and how we might assist. All discussions are strictly confidential and handled only by senior members of our firm.

AICPA American Institute of Certified Public Accountants

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# MMA ANNUAL MEETING

## *Schedule of Events*

Rochester, Minnesota  
May 16-18, 1990

### *Wednesday, May 16*

- 10:00 A.M. - 6:00 P.M.  
General Registration
- 10:00 A.M. - 11:00 A.M.  
PIC Board Meeting
- 11:00 A.M. - 12:00 Noon  
Media Briefing
- 11:00 A.M. - 12:30 P.M.  
MMSC Board Meeting and Lunch
- 12:00 NOON - 1:30 P.M.  
MN Women Physicians Lunch
- 12:30 P.M. - 3:30 P.M.  
MMA Board of Trustees Meeting/Lunch
- 2:00 P.M. - 3:30 P.M.  
MEDPAC Annual Meeting
- 2:00 P.M. - 3:30 P.M.  
County Society Executives Meeting
- 4:00 P.M. - 5:00 P.M.  
Hospital Medical Staff Section Caucus
- 4:00 P.M. - 5:30 P.M.  
Minnesota Academy of Family  
Physicians Caucus
- 4:00 P.M. - 5:00 P.M.  
Young Physicians Section Caucus
- 4:00 P.M. - 5:30 P.M.  
AMA Delegation Meeting
- 6:00 P.M. - 9:30 P.M.  
*Welcome Reception & Light Buffet*  
Simultaneously at Mayowood &  
Mayo Foundation House

### *Thursday, May 17*

- 6:45 A.M. - 5:00 P.M.  
General Registration
- 7:00 A.M. - 7:30 A.M.  
Reference Committee Orientation Breakfast
- 7:00 A.M. - 8:45 A.M.  
Three Simultaneous Caucuses:
- Ramsey
  - Hennepin
  - Greater Minnesota

### *Thursday, May 17 (Continued)*

- 7:30 A.M. - 8:30 A.M.  
Medical Student Section Breakfast Meeting
- 9:00 A.M. - 10:30 A.M.  
MMA House of Delegates (Session I)
- 10:45 A.M. - 12:15 P.M.  
*Awards Brunch* Kahler Plaza
- 12:30 P.M. - 3:00 P.M.  
Reference Committee Open Hearings
- 3:00 P.M. - Until Completion  
Reference Committee Executive Session
- 3:15 P.M. - 4:30 P.M.  
Forum on AMA Affairs
- 3:30 P.M. - 5:00 P.M.  
Tour of Mayo Facilities
- 6:00 P.M. - 7:00 P.M.  
*Pre-Inaugural Champagne Reception*  
Sieben's Building Atrium
- 7:00 P.M. - 12:00 P.M.  
*President's Inaugural Dinner & Dance*  
Radisson Centerplace

### *Friday, May 18*

- 7:00 A.M. - 8:30 A.M.  
MMA Board of Trustees Breakfast Meeting
- 8:30 A.M. - 12:00 Noon  
General Registration
- 8:30 A.M. - 10:15 A.M.  
Two Simultaneous Caucuses:
- Ramsey & Hennepin
  - Greater Minnesota
- 10:30 A.M. - 3:00 P.M. (Includes Lunch)  
MMA House of Delegates (Session II)
- 3:00 P.M. - 3:30 P.M.  
Board of Trustees Organizational Meeting

# The Metaphor Expert Testifies on Health Care

*Richard L. Reece, M.D.*

**Editor:** You are an expert on metaphors as applied to health care?

**Expert:** I am told that I am, Sir.

**Editor:** What is a metaphor?

**Expert:** A metaphor is a literary device wherein you suggest a resemblance between two things that are not literally the same. With a metaphor, you vividly juxtapose concrete images. You might say I'm an expert in the concrete, not the abstract.

**Editor:** Please give concrete examples.

**Expert:** Well, in health care, you go from womb to tomb and cradle to ladle.

**Editor:** We'll use "womb to tomb" as Exhibit A. But I'm not sure what you mean by "cradle" to "ladle."

**Expert:** Well, Sir, health care is like a giant soup bowl. Taxpayers, businesses, and individuals pour 12 percent of the GNP into the tureen—some call it a trough—and bureaucrats and managers, after gulping down their 20 percent, ladle out money to the doctors and hospitals and benefits to patients.

**Editor:** I must say your "ladle" metaphor doesn't exactly bowl me over. Come on. Surely you don't believe your metaphor explains the intricate workings of the entire health care economy?

**Expert:** Not entirely. The soup bowl sits on a wagon. You see, the health care economy is part of the national economy, which is like a wagon. There are those who load the wagon and those who unload the wagon. The trick is to keep loaders and unloaders in balance. When unloaders, paradoxically called "freeloaders," become too numerous or the loaders too few, you're in real trouble, and



"An expert is a fountain. From the crevasses of his mind gush forth myriads of pristine, sparkling droplets of wisdom into the blue sky."

you have to circle the wagons.

**Editor:** You're mixing your metaphors, aren't you?

**Expert:** Being an expert has its privileges. Inconsistency is one of those privileges. Keeping two inconsistent thoughts in mind at the same time is a mark of a great expert.

**Editor:** I see. Do you have a metaphor that explains what an expert is?

**Expert:** I thought you would never ask. An expert is a fountain. From the crevasses of his mind gush forth myriads of pristine, sparkling droplets of wisdom into the blue sky. When the droplets descend to earth, they may evaporate a little or lose something as they are filtered through the dirty layers of reality.

**Editor:** To me, your fountain metaphor sounds suspiciously like the

trickle-down metaphor of the Reagan-Bush administration, except you're talking about wisdom rather than money. The conservatives have another metaphor—the ice cube exchange chain. Federal dollars are like an ice cube: the more hands they pass through in the human-chain, the smaller the ice cube becomes.

**Expert:** You ask the questions; I'll supply the metaphors.

**Editor:** What is the function of an expert in health care?

**Expert:** The expert is a holistic thinker. Let me explain. The expert is a vertical hole digger—a vertical thinker. Experts dig a series of deep parallel holes across the health care terrain. They extend their knowledge holes deeper and deeper into the earth, becoming more and more specialized, knowing more and more about less and less. At the bottom of each hole, you'll find an international expert. An expert, you might say, is holier than thou.

**Editor:** Do these vertical holes interconnect?

**Expert:** Of course not. An expert knows only his own hole.

**Editor:** How does your own deep knowledge apply to health care? How does this knowledge apply, for example, to the government's role in health care?

**Expert:** The government resembles a hippopotamus. When the hippo first lies down next to you, it feels warm and comfortable, but then it rolls over and crushes you. The hippopotamus is also very territorial. It defines its territory by defecating in a ring. When you cross the line, it crushes you.

*Continued*



**Editor:** So the moral is: don't mess around in government messes? Given the size of the government, I thought you would use an elephant metaphor.

**Expert:** I can, Sir. Describing the government's role in health care is like blind men feeling an elephant. If you were blind and feeling a leg, you might think you were dealing with a tree; if you were swinging on the tail, you might say you were twisting on a rope; if you were grasping the trunk, you might feel as if you were wrestling with a giant snake. The expert's job is to get a feel of the beast.

**Editor:** That's easy for you to say, but of what practical use are metaphors? Who cares, for instance, if government health care is like a tree?

**Expert:** Metaphors give great insight. For instance, no tree grows to the sky, nor does government payment for health care ever reach the sky.

**Editor:** How might the government look, metaphorically speaking, to the doctor who has to deal with Medicare or Medicaid?

**Expert:** Well, it depends. If you were an angry doctor trying to get a definite answer from the bureaucracy, the government might look like a giant mass of gelatin. It would shimmer, shake, and shift, but you would get no answer, and you wouldn't have anything to grab, either.

For those doctors dealing with Medicare clerks, I've been told the process is like being pecked to death by a flock of ducks. Which makes sense. After all, every duck has a bill.

I've also heard that the managed care and government bureaucracies make a physician feel like Gulliver, pinned down by swarms of 6-inch-high Lilliputians posing as Medicare managed care clerks.

**Editor:** How would you characterize the Medicare payment inequities for rural vs. urban care, specialists vs. generalists, and the coastal regions vs. the American heartland?

**Expert:** That's easy, Medicare payment inequities are like mountains and valleys. The cities and the specialists have scaled the peaks, which are mostly on the East and West

coasts, and the generalists reside mostly in the rural regions in the South and Midwest. To level out the system, you cut off the mountain tops and fill in the valleys.

**Editor:** Thank you for the geography lesson. Dogeographic metaphors also apply to the competitive health care scene?

**Expert:** Indeed, they do, Sir. Competitive health care is like a turbulent river. There are rapids, falls, and patches of white water.

**Editor:** But not much positive cash flow.

**Expert:** Perhaps not, but beyond the rapids lie calmness and tranquility, with organizational cash cows grazing next to the still waters.

**Editor:** Do these cows go to market?

**Expert:** Indeed, they do. Health care is teeming with large organizations that go to market, with their own distributors, suppliers, salesmen, and consumers.

**Editor:** But what happens to the doctors and patients?

**Expert:** Oh, they are there, but under different names. The doctors are called "providers," and they are just one of a vast army of providers—nurses, psychologists, podiatrists, optometrists, chiropractors, dependency counselors, and naturopaths—who supply the services of the corporations, and the patients are called "consumers" or "customers" or "clients" of the corporation. The doctors are simply brokers for the corporation. The doctors tell the patients what they can and cannot have. In the marketplace, the terms "doctor" and "patient" no longer have any relevance.

**Editor:** But I thought doctors and patients were what medical care was all about.

**Expert:** Medical care, maybe, but not health care. Medical care is only part of health care. Health care is a comprehensive, universal, all-embracing, vertically and horizontally integrated multi-chambered balloon. One of those chambers is medical care. Other chambers contain pharmacy services,

nursing homes, mandated services, durable medical equipment—everything but the kitchen sink.

**Editor:** What a sinking feeling. Health care is really a balloon?

**Expert:** Yes, Sir, a nondeflatable, continuously expanding balloon. Push in one side, and it will bulge out the other.

**Editor:** So what's all the controversy about? Balloons are nice and soft and fun. They have no rough edges.

**Expert:** True, Sir, but there's one great metaphor I've kept from you. Health care is also a shell game. The "pea" is financial risk and paperwork. The shells are the government, business, third parties, hospitals, doctors, and patients. The aim of the game is to move the "pea" around so fast no one knows where it is—until it's too late.

**Editor:** How do you know when the game's over?

**Expert:** When the loser says: "Peas be upon me." MM

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### Elderly's Needs Are No Surprise

I read with interest "The Coming of Age in Minnesota" [*Minnesota Medicine*, March 1990], emphasizing health care of the elderly. Anticipation of the needs of the older person is not new. I am enclosing two reprints. One deals with medical oncology as a subspecialty and points out that 20 years ago the areas of relevance in medical oncology included gerontology. During the initial formation of the medical oncology subspecialty, we recognized the impending need for physicians skilled in caring for the older person with cancer.

In a presidential address before the American Society of Clinical Oncology in 1988, I addressed the subject of aging and cancer, a problem that will become increasingly great as the number of older persons increases.

Finally, for 25 years I have been on the Board of Directors of the Presbyterian Homes of Minnesota (Arden Hills, Roseville, and Bloomington). This group has done pioneering work in housing and care of older persons, including having the first home health care service in the Twin Cities. The Langton Lake Home, of the Presbyterian Homes, created a 25-bed research unit for Alzheimer's disease with a research team that includes members from the University of Minnesota Hospital, the Veterans Administration Medical Center, and Ramsey County's hospital. It is a beautiful example of a community facility working with the university and vice versa.

B. J. Kennedy, M.D.  
Regents' Professor of Medicine  
Masonic Professor of Oncology  
Director, Division of Oncology  
University of Minnesota  
Minneapolis, Minnesota



### A Question of Credibility

John Kralewski, Alvin Schultz, and James Reinertsen [quoted in "Physician Executives: Can They Manage Both Worlds?" *Minnesota Medicine*, February 1990] are absolutely right! Physician executives must have clinical experience, preferably in a private practice setting. In our work recruiting physician executives, we have yet to work for an organization that doesn't require practice experience. Physician executives lead and manage physicians. In order to have credibility with this constituency, physician executives must be able to relate to the practicing physician's concerns and problems. Having been "in the trenches" goes a long way in establishing these necessary relationships.

Jennifer R. Grebenschikoff  
Vice President  
Physician Executive  
Management Center  
Tampa, Florida

### A Response to A Response to A . . .

The Minnesota Academy of Otolaryngology-Head and Neck Surgery wishes to respond to several points made by Del Ohrt, M.D., and Fritz Ohnsorg, M.P.H., in their article "Accountability, Affordability, and Quality Health Care: Mutual Responsibilities for the 1990s," published in the April issue of *Minnesota Medicine*.

The authors indicate that we erred in reporting [see "Secret Proprietary Standards of Care: A Medical Academy's Response," *Minnesota Medicine*, April 1990] that the Medical Review System purchased by Value Health Sciences (VHS) cost \$1 million. We have no direct access to information about the cost; that figure was quoted to the MAO-HNS ad hoc committee at its initial meeting with Blue Cross and Blue Shield of Minnesota (BCBSM) in July 1989 by Dr. Ohrt. If, indeed, the cost was not \$1 million, we have no explanation for why he would have reported it as such, and we would accept his comment in the article that the cost was actually "a small fraction" of that \$1 million.

The authors discuss documentation in a report retrospectively compiled and reported in 1980. This seems quite outdated and not applicable to the current discussion. Hospital-based quality assurance programs have been present since the 1980s, and the MAO-HNS has no reason to believe there is a wholesale lack of documentation for the procedures under discussion within those systems.

Secrecy of the VHS decision-making criteria is the primary issue! The criteria were available only to single physicians who were willing to review, but not copy or



document, them on-site at BCBSM or were available to small groups for private examination. None of this review was available for discussion or release. The MAO-HNS leadership did not feel it could review then endorse standards not available to its members or patients and physicians at large. March 9, 1990, was the first time representatives of VHS and BCBSM stated publicly that they would release criteria for review and comment by MAO-HNS ad hoc committee members.

On April 5, 1990, the MAO-HNS received "updated standards" from VHS and BCBSM. These are presumably not exactly the standards employed from July 1, 1980, to the present time. These documents, which will be distributed to the membership, will be reviewed by the MAO-HNS ad hoc committee and compared with its preferred practice patterns. Until this review is complete, all discussions of appropriateness screening failure rates are moot.

Ohrt and Ohnsorg ask why otolaryngologists should be peculiarly sensitive regarding the VHS review system, and then they extensively criticize otolaryngologists for not documenting surgical indications. Could this sensitivity arise from the fact that BCBSM and the VHS system refuse to accept any historical data obtained from the patient by the otolaryngologist unless it is substantiated in writing by a referral letter from the primary care physician? Much of the primary care physician-otolaryngologist communication in this state has been transmitted via the patient verbally, not in the form of expensive letters. Rejecting patient-transmitted, physician-directed referral data demonstrates a lack of understanding of the medical delivery system and explains at once why otolaryngologists appear under the VHS Medical Review System to observe poor documentation habits. This point has not even approached the more difficult

problem of actually detecting, treating medically, and documenting the presence of otitis media and adenotonsillar disease in the community primary care environment.

All physicians should be aware of the otolaryngologists' experience with the VHS Medical Review System simply because otolaryngologists have been subjected to more reviews in a shorter period of time than any other group. All physicians would do well to obtain the criteria relevant to their practices and review the impact of this program on themselves and their patients.

The MAO-HNS stands for quality medical care based upon public standards developed by Minnesota physicians fulfilling the guidelines of American Medical Association parameters employed in an educational setting and administered in an efficient, low-cost manner.

Kent S. Wilson, M.D.

President

Minnesota Academy of Otolaryngology-Head and Neck Surgery

Thomas Christiansen, M.D.

Chairperson, MAO-HNS

Ad Hoc Committee on the BCBSM Medical Review System

### Putting BCBSM in Perspective

With all due respect to the intent of the Perspectives piece, "Accountability, Affordability, and Quality Health Care: Mutual Responsibilities for the 1990s," by Del Ohrt, M.D., and Fritz Ohnsorg, M.P.H., [*Minnesota Medicine*, April 1990], I believe the authors make the mistake of assuming a correspondence between the goals and objectives of BCBSM and the best interests of the American public regarding its health care. They bemoan the lack of "documentation" for "medical necessity" in the medical records of physicians, they

suggest referring "high-cost cases" to "case management," and they try to justify the proprietary nature of rationing decisions in their system by sharing the criteria by which appropriateness for any health care service is determined. However, the question of appropriateness is still the purview of the payer, and should be, according to Ohrt and Ohnsorg.

They suggest that there are "varying levels of understanding and cooperation among the different physician specialties." Presumably, this is based either on resistance to exposing "unnecessary" procedures or charges or on the absence of a presumed scientific standard for medical care—which they are in the process of deducing from their analysis of medical practice patterns.

Let's start with some fundamentals:

1. The purchasers of health care are patients, not employers or governments. Yet employers and governments, not patients, are the targets for BCBSM's marketing efforts.

2. Physicians are patient advocates, not employees of BCBSM. Even if we are employees, our primary obligation is to individually oriented, quality patient care in all circumstances.

3. The cost of medical practice is escalating because of the increasing interference and confusion of reviewers and payers who do not have guidelines on how to ration care. Instead, they negotiate with employers and government, creating monstrous contraptions of individualized detail all designed to withhold, reduce, or delay payment for medical procedures. Increasingly, BCBSM is becoming both judge and jury when it comes to medical necessity. This, in the absence of any rewards for doctors who treat patients in the ways they ought to be treated.

BCBSM is in competition with HMOs, and each health care organization seeks to expand its market share and bottom line.

There are only four ways health care costs can be lowered:

- By reducing access,
- By reducing payment per procedure,
- By reducing the number of reimbursed procedures performed on patients, and
- By reducing administrative costs.

"Successful" rationing will require societal decisions about access to expensive procedures, such as organ transplantation, and highly technological diagnostic procedures. To be fair, this must apply to every citizen, with restrictions based on age: for example, no heart transplants performed on patients over a certain age. Health care resources are, to some extent, a public good and, therefore, cannot be available only to those who can afford to pay. The principles of excluding patients from health care based on previous illnesses and treatment rendered are not acceptable in a humane

health care system.

There is nothing in the BCBSM apology to suggest how BCBSM can compete with other health care systems *in ways other than reducing costs*, although such a discussion of alternatives would be welcome.

Meanwhile, I think society is more closely examining answers to the following crucial questions:

- Can we afford an inefficient and so-called competitive health care system that contributes to increasing administrative costs and perpetuates discrimination of benefit allocation?
- What alternatives do we have to de facto rationing based on claims of "medical necessity" that are closely becoming less and less credible?
- Are U.S. citizens willing seriously to consider single-source payment mechanisms that will provide a "playing field" that, if not fair, is at least understandable?

- Can we develop methods of determining explicit rationing? How will this sell politically?

Lee Beecher, M.D.  
Psychiatrist  
St. Louis Park, Minnesota

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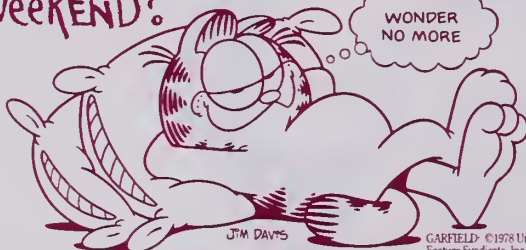
# FABULOUS MINNESOTA WEEKENDS



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JIM DAVIS

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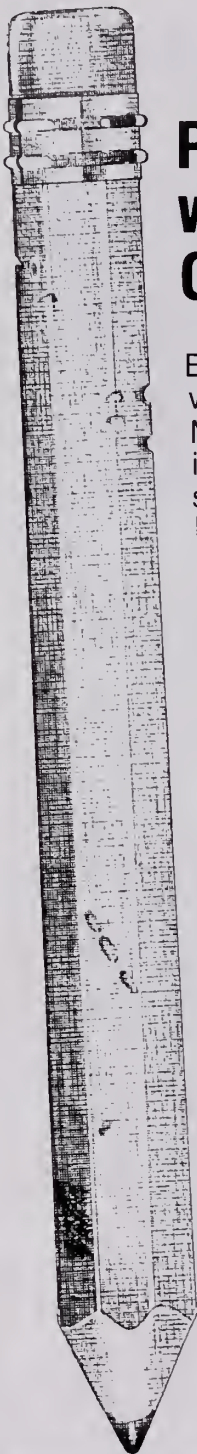
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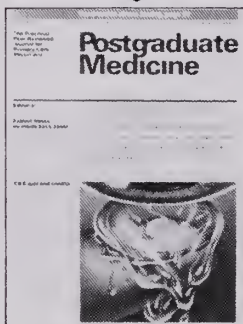
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# Practicing Medicine at the Olmsted Medical Group: It's A Pleasure

Minnesota Medicine Interviews G. Richard Geier, Jr., M.D.

*This interview is a pleasure to read because Dr. Geier, surgeon and president of the Olmsted Medical Group in Rochester, finds practicing medicine a sheer pleasure.*

*Too often, as we wring our hands in despair over the changes affecting us all, we neglect the success stories. The Olmsted Medical Group represents such a success story. So does Dr. Richard Geier. As a practicing surgeon and a practicing medical executive, he has adjusted to the new realities. With the help of his colleagues, he has led his group in a dramatic expansion.*

*What is the secret to the Olmsted Medical Group's success? I suspect many reasons account for his success. After speaking to Dr. Geier and hearing his answers to my questions, let me hazard a few guesses:*

- *I suspect success stems from Dr. Geier's leadership style. Here is a man with both practice and management skills, and he operates in both camps. Besides, as you will note, he has a self-effacing sense of humor, a sense of community, and a sense of pleasure in being a physician.*
- *I suspect success comes from listening closely to what the residents of Olmsted County and the surrounding region want, and then responding to those wants concretely by adding services, people, and outlets.*
- *I suspect the Olmsted Medical Group has built a flexible, responsive, and informal physician culture that thrives on positive actions, a closeness to the community, a cooperative attitude toward the Mayo Clinic, and a common sense of direction.*
- *I suspect this physician-led clinic is driven more by a sense of getting the right things done, rather than by unduly relying on organizational structure.*
- *And finally, I suspect that physicians practicing medicine within this group still are having fun doing what they love to do and succeeding at it.*

**Minnesota Medicine:** Dr. Geier, you have been president of the Olmsted Medical Group for the last six years, and you've been with that group for 15 years as a general surgeon. The group now has 51 physicians and is rapidly

growing, even though it sits in the shadow of the Mayo Clinic.

What is your background? Where did you grow up? Where were you educated? And why did you pick the Olmsted Medical Group as your place of practice?

**Geier:** First of all, we are located southeast of the Mayo Clinic, so we are never in its shadow. However, early on a winter morning when the sun hangs low on the southeast horizon...

I was born and raised in Evansville, Indiana, the oldest of six children. My father was a commercial artist and a New Deal Democrat. My mother was a teacher, musician, and from a long line of Indiana Republicans. They both contributed to my artistic sense, which is helpful in surgery as well as in enjoying the arts climate in Rochester and the Twin Cities, and they both contributed to a sense of social responsibility. My business sense came pretty much from my mother alone.

I received my B.A. from DePauw University (I finished a bit higher in

my class than Dan Quayle did in his) and my M.D. from Northwestern in 1966. I stayed at Northwestern for a surgical internship and residency and, after two years in the Army, joined the Olmsted Medical Group in the summer of 1974.

I had originally intended to return to my home area to practice, but my wife—being from northern Illinois—didn't like the "South," and we decided we would rather be someplace with more snow and less rain. I originally looked in southern Wisconsin and probably wouldn't have considered Minnesota at all if my sister hadn't married someone from St. Paul and lived there. Having visited St. Paul, we discovered that Minnesota was habitable and did not lie north of the Bering Strait as I had thought.

When we visited Rochester and the Olmsted Medical Group, we were most impressed with the people—the physicians we met, the support staff, and the people of the community who would be our neighbors and my patients. I was also impressed with the group's organiza-



G. Richard Geier, M.D.

**"We have distinguished ourselves by being convenient and user-friendly."**



tion and its founder and leader, Dr. Hal Wenthe.

### *The Group's Formative Years*

**Minnesota Medicine:** When was the Olmsted Medical Group founded? And for what reason?

**Geier:** Dr. Wenthe began a solo general practice in Rochester in 1949. He had married a woman from Rochester and was encouraged by her uncle and by Harry Harwick, the original Mayo Clinic administrator, to settle here.

The county, as a means of attracting some general practitioners to the community, was in the process of developing the Olmsted Community Hospital, which opened in 1955. The Mayo administration, though not many of its doctors, supported this effort. They felt that people would appreciate the Mayo Clinic more if they had a choice of physicians.

Dr. Wenthe originally had no plan to develop a group, much less a multispecialty group, but he was shortly joined by a college friend, Jim Doyle. Feeling that general practitioners should not be doing surgery and obstetrics, he then recruited a surgeon and obstetrician by the time the hospital opened.

IBM moved to Rochester about the same time, and the community grew dramatically over the next few years, the Olmsted Medical Group growing with it.

### *The Booming '80s*

**Minnesota Medicine:** Why and how has the Olmsted Medical Group grown so rapidly in the past few years?

**Geier:** Great leadership! Actually, in the early to mid-1980s, there was a sudden and tremendous shift in surgery from the inpatient to the outpatient setting, as well as a reduction in non-surgical admissions and length of stay. To maintain the hospital's volume at a viable level, we needed to increase our own volume markedly. We did this by extending our hours, increasing our number of primary care physicians, and increasing our satellite offices from three to eight to improve access and convenience to attract new patients. Then we added several new specialties and technologies to increase the range of services we could provide to our patients.

Thus, from the beginning of 1986 to the beginning of this year, we grew from 28 physicians to 51, with patient volume increasing correspondingly. We completed a major addition to our Rochester office in 1988, are finishing our third major satellite office building project, and are planning two more.

We have distinguished ourselves by being convenient and user-friendly. We had some concerns about becoming too big or too specialized. Actually, we have been able to maintain our atmosphere, and our growth seems to have added to our stature and has attracted still more patients.

---

"I am a true believer  
in group practice, and  
I think that  
increasingly  
integrated systems are  
going to be the  
trend."

### *Olmsted Medical Group Profile*

**Minnesota Medicine:** What is the current mix of specialists within the group?

**Geier:** Family medicine continues to be our largest department, with about 20 physicians. Internal medicine, pediatrics, ob/gyn, and anesthesiology have four to six members each. Surgery, ENT, urology, dermatology, allergy, psychiatry, industrial medicine, and radiology have one or two each. We are currently recruiting about 12 more physicians—again, mostly in the primary care areas.

**Minnesota Medicine:** How is the Olmsted Medical Group organized?

**Geier:** We are a professional corporation owned by the physicians. Our five-physician board of directors has full authority to govern the corporation and, in turn, delegates operational authority to the president, administrator, and medical director. This gives us a streamlined, action-oriented organizational structure that has been a major factor in permitting our rapid growth. I cannot overemphasize the importance of the rank-

and-file physicians' willingness to let their leaders lead, and their acting as a group or corporation rather than requiring that everything be approved by everyone.

**Minnesota Medicine:** Do many HMO or PPO patients come to your clinic?

**Geier:** The Mayo umbrella keeps Twin Cities HMOs out of the area, so we have only 5 or 6 percent HMO patients with the Mayo Health Plan and Blue Plus.

**Minnesota Medicine:** What is your patient mix? Do most of the patients come from Rochester and Olmsted County?

**Geier:** About 75 percent of our patients come from Olmsted County. Six of our eight branch offices are located outside Olmsted County, however.

**Minnesota Medicine:** How do your patients differ from those who go to the Mayo Clinic?

**Geier:** The main difference is that for insurance reasons we see very few Mayo employees; otherwise, the differences are slight. Our patients tend to be slightly younger; we seem to attract more IBM employees and rural people; and our surveys suggest that our patients are more concerned with cost and convenience, while Mayo patients are more concerned with physician reputation and facilities.

### *Not in Mayo's Shadow*

**Minnesota Medicine:** What is your relationship with Mayo? Are there any formal ties? Do you or your colleagues attend continuing medical education seminars at Mayo?

**Geier:** We have an excellent relationship with the Mayo Clinic on an institutional level and among individuals. We are warmly welcomed to Mayo's seminars and departmental meetings. The Mayo Regional Laboratory provides laboratory supervision for our clinical laboratory and for those at the Olmsted Community and Spring Valley hospitals, and it provides pathology services, including frozen sections. Mayo Medical School students routinely rotate through the Olmsted Medical Group for family medicine and pediatrics, and irregularly for other electives.

**Minnesota Medicine:** I would assume there is no cross-admitting of patients between your hospital and the two Mayo hospitals—Saint Marys and Methodist?

**Geier:** That's right; however, it is not unusual for Mayo specialists to provide on-site consultation at the Olmsted Community Hospital, and the cardiologists do echoes both there and at the Medical Group.

**Minnesota Medicine:** Describe for us your hospital. How big is the medical staff? Is its staff composed only of members of the Olmsted Medical Group? Or do you have other physicians from Rochester and the surrounding communities on your staff?

**Geier:** The Olmsted Community Hospital is a 61-bed hospital owned by the county and expanded and reno-

vated in 1987. Despite its relatively small bed size, we do more than 2,000 operations a year and about 900 deliveries. The hospital staff is composed almost entirely of members of the Olmsted Medical Group. One oral surgeon occasionally admits patients. He, another dentist, and a podiatrist do some outpatient surgery. There are only a handful of physicians in our whole area who are not members of the Mayo Clinic or the Olmsted Medical Group. These physicians are on our hospital staff but rarely, if ever, admit patients.

### *Mainly Rural, not Urban, Issues*

**Minnesota Medicine:** Would you say the issues that concern your doctors are similar to those faced by Twin Cities physicians or to those faced by rural physicians?

**Geier:** Our situation in Rochester is considerably different than that faced by Twin Cities physicians, primarily because of our relatively low HMO penetration. We are more concerned by the problems of rural physicians such as low reimbursement and difficulties attracting physicians to rural communities. Here's an example of the reimbursement inequities we face: We looked a few years ago at the feasibility of a Medicare HMO. The Olmsted-Fillmore county line runs through Chatfield, where we have an office. A person living on the south side of the street is worth \$150 a month less to the federal govern-

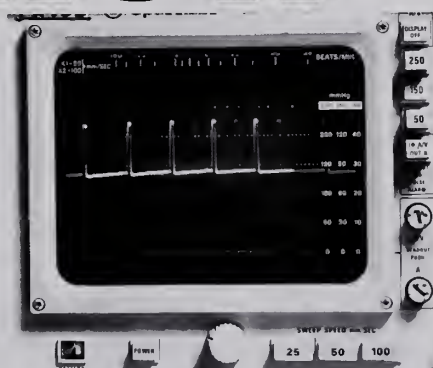
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ment than his neighbor on the north. This is obviously crazy.

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### *A Satisfied Physician Administrator*

**Minnesota Medicine:** Have you found your own practice satisfying?

**Geier:** I am so happy I can hardly stand it. I thank God every day for bringing me to Rochester. I especially enjoy the relationships I have built with patients and their families over the years. With some families, I have operated on eight or 10 people across three or four generations, and there are a number of patients on whom I have done more than one operation over the years.

The people, both inside and outside the group, are what attracted me here, and my initial assessment of them was certainly correct. Rochester has been a wonderful place to live and raise a family. I think that branching out into upper and lower GI endoscopy a few years ago and becoming involved with managing the medical group have also opened up two new careers and have helped stave off mid-life crisis.

**Minnesota Medicine:** How have you prepared for your new career in administration, and what problems has it caused?

**Geier:** I like to say that serving for nine years on the board of Blue Cross and Blue Shield of Minnesota and learning from the staff and business people on that board gave me the equivalent of an M.B.A. Since becoming president of the Olmsted Medical Group, I have taken a number of American College of Physician Executives courses. In fact, I recently passed my medical management boards. It would have been helpful, of course, to have taken some of these courses prior to getting into the soup.

The major problem this has caused, naturally, is lack of time. This is a problem for any physician executive, because you really are dealing with two full-time jobs. Patients always come first, of course, which means that it is the administrative end that gets short-changed. This leads to chronic frustration over not being able to get everything done as fast as I would like to do it. However, I don't think the answer is becoming a full-time administrator. I think group practice leaders have to be "us" and not "them." Once a physician ceases to practice, he is just an administrator.

### *A Hopeful Future*

**Minnesota Medicine:** What steps are you and your group taking to meet the future? Where do you think the Olmsted Medical Group will be in 10 years?

**Geier:** I must confess that we don't have a 10-year plan. With the rapidity of change in medicine, our long-range

plan at any time extends until summer of the next year. I do have some hopes, if not concrete blueprints, for the future. I am a true believer in group practice, and I think that increasingly integrated systems are going to be the trend. I would like to see our clinic and hospital fully merged into one building, which would permit great improvements in economy, efficiency, and convenience.

With improvements in information storage and transfer technology, I expect to see fully computerized medical records, allowing instant and simultaneous access at any of our service locations, and we may see more regional integration as well in the next 10 years. Our own branch offices are staffed by only one or two family physicians. I am intrigued by the combining of larger groups in Willmar and Fargo. I think we'll have to move in that direction if we are going to solve the problems of rural health care in Minnesota and elsewhere.

I hope in 10 years to find the Olmsted Medical Group on the cutting edge, not only of clinical medicine, but of health services delivery. We are in the process of establishing a foundation and increasing our involvement in education and research in support of these goals.

**Minnesota Medicine:** Are your hospital and your group engaged in any joint economic ventures? Do you have any formal economic entity, such as an HPO or IPA, to help you carry out these ventures?

**Geier:** No, we don't.

**Minnesota Medicine:** Are you optimistic about the future of American medicine? Would you advise your own children to enter medicine?

**Geier:** I am cautiously optimistic about the future of American medicine. The potential for progress in medicine is unlimited and exciting. The question is whether the politicians will screw it up. Organized medicine needs to do a much more effective job of communicating with the public. We need to correct frequently promulgated misinformation. We need to oppose bad ideas rather than try to modify them or wish them away. We need to define the real issues clearly and repeatedly and not let ourselves be cast as the rich, greedy doctors exploiting our patients. We need to listen to our patients and answer their concerns so they will not want to risk losing what they have in return for some politician's promises.

I would be happy to have my own children become physicians; I have encouraged but not pushed them in that direction. I think medicine will continue to be an exciting career and will continue to be frustrating, but most careers are—just ask your friendly neighborhood teacher, police officer, or business person. I believe it will even be financially rewarding, certainly in comparison with many other career choices. There will be less individualism in future medicine; physicians will have to work better together in groups and organizations, but this is good, not bad.

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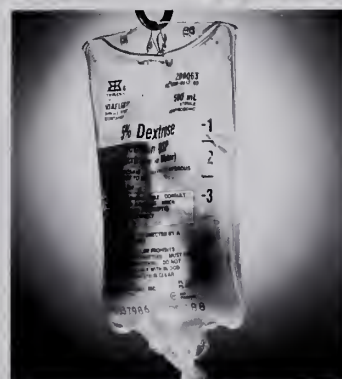
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# Organized Medicine and the Doctors Mayo

Clark W. Nelson

"By these meetings we open up the best side of our social natures . . . and by this contact of intellect with intellect, absolute ideas of things become exploded, and the truths of science more firmly fixed in our minds."

—William Worrall Mayo

Minnesota State Medical Society inaugural address, February 7, 1872

In their day, the Mayo brothers were among the leaders in the development of organized medical practice in the United States. Dr. William Worrall Mayo, their father, had instilled in them a sense of responsibility to their profession. He was a staunch supporter of professional associations that were dedicated to improving the standards of medical practice. He had spent much of his career as a member of the American Medical Association and had been an officer and a founder of several state and local societies.



## Father Mayo

In 1868, Dr. William Worrall Mayo attended the organizational meeting of the Olmsted County Medical Society in Rochester. After drawing up a constitution, electing officers, and preparing a fee schedule, the new members of the fledgling society proceeded to hold biweekly meetings, usually at the home of Dr. Mayo. In

its early sessions, Dr. Mayo stimulated discussion among the society's members by presenting a paper on Darwinism entitled "The Character of the Earth's Elements, Its Formation, Development and Ultimate Destiny, and Its Inhabitants." After some years, interest in the society waned. Then, in 1888, it was reorganized with the help of Dr. Mayo, who was elected its president for two years.

Previously, the senior Mayo had been among a group of Minnesota physicians who gathered in St. Paul in 1869 to revive the Minnesota State Medical Society after its membership became inactive during the Civil War. At that time, he played a substantial role in the convention's proceedings and over the next decade remained one of the society's active leaders. In later years, as an elder statesman, Dr. Mayo continued to take part in organizational matters.

Among his contributions, Dr. William Worrall Mayo served as the president of the Minnesota State Medical

Society (1872-1873). He was then in his early 50s and had been the society's third vice president (1870-1871). He had also been a member of the committee that nominated the first president of the revitalized organization in 1869.

After his election to the society's presidency, Dr. Mayo gave a brief inaugural address on February 7, 1872. In part, he noted: "By these meetings we open up the best side of our social natures, and from isolated enemies we become fast friends, and by this contact of intellect with intellect, absolute ideas of things become exploded, and the truths of science more firmly fixed in our minds, and so we are mutually benefitted, encouraged in our studies and forced by comparison to keep up with the science of medical experience. . . . you must remember that by your training and knowledge, you have become citizens of the medical world—a grand brotherhood of science—who, in the line of their duty knows neither race or color when humanity is suffering, not even reserving to yourselves, the right to avoid danger or death by contagion or infection . . ."<sup>1</sup>

The following year, Dr. Mayo called the state medical society's annual assembly to order on February 4, 1873, in the U.S. Court Room in St. Paul. He acknowledged the favorable action the Legislature had taken on the society's recommendation for the establishment of a state board of health. He expressed concerns over the number of malpractice suits, usually with little cause, that were attempting to exploit physicians.<sup>2</sup> During the afternoon session, Dr. Mayo delivered his presidential address, "The Relations of Physicians to the Public and Each Other." While somewhat lengthy and philosophical, Dr. Mayo's remarks revealed his hopes and aspirations for the medical profession and the people of Minnesota. In part, he stated:

" . . . we are in the infancy of our State life, an aggregation of persons with distinct national influences and bound together by the common ties of political liberty, and the opportunity for success which lies in the virgin soil and the widest extent of our domain. . . . to become great we must cultivate individuality and independence of thought with free expression on all subjects."<sup>3</sup>



In support of the new state board of health and its study of disease, Dr. Mayo observed:

"... the profession of this State, above all others, should be able to contribute some facts which would go far toward solving the mysteries of lung diseases. Our State has become a large hospital, receiving from every part of the Union invalids who are seeking relief from that fell destroyer, consumption."<sup>3</sup>

### *The Mayo Brothers*



*Dr. Will*

After joining his father's practice in Rochester in 1883, Dr. William J. Mayo became an active promoter of progressive medical associations. Within 12 years, at the age of 32, he was elected president of the Minnesota State Medical Society (1893-1894). When Dr. Will called the 26th meeting of the society to order at the State

Capitol on June 20, 1894, the agenda included a resolution calling for the establishment of a national Bureau of Health in Washington. The following day, Dr. Will gave his presidential address, "The Medical Profession and Its Relations to the Sister Professions and the Public." In his remarks, Dr. Will focused on physicians' relationships with ministers, lawyers, and the press. In part he noted:

"Our relations with the press are peculiar but not inharmonious. . . . The press today not only registers public opinion and accumulates and records contemporaneous history, but through its staff it molds public thought and makes our common humanity more apparent by bringing mankind into daily communication. . . . We must explain to our friend of the pencil that after all we are human but that our profession is divine. . . . We will admit to many personal shortcomings but insist that our code of ethics is not the superannuated farce they believe it to be, but that it contains the opinion of the profession on how gentlemen should act who hold confidential relations with their patients and peculiar relations with each other."<sup>4</sup>

Further, Dr. Will mentioned that scientific medicine was making headway and that those who criticized irregular practitioners would only make them martyrs and, thereby, continue to focus public attention on them. He called for some means of public control to minimize the spread of tuberculosis, resulting in the society's appointment of a committee to further investigate the need. Dr. Will also noted that while malpractice suits continued to bother the profession, he felt that no special protection should be promoted as it would damage the public's goodwill in the long run.

Following his state presidency, Dr. Will, at the age of 44, became one of the youngest physicians to be elected president of the American Medical Association (1905-1906). With pride, the Minnesota medical journal re-

ported that the installation of President-Elect Mayo in Boston was "impressive and created the wildest enthusiasm. . . . The entire audience stood up, waving papers and shouting their greetings."<sup>5</sup>

Afterwards, the older Mayo brother gave his presidential address before the 5,000-some members—at the time, the largest AMA contingent ever assembled. In his presentation, "The Medical Profession and the Issues Which Confront It," Dr. Will encouraged physicians to counteract commercial forces and their patented compounds. He decried the availability of such poisonous and intoxicating concoctions as "Kopp's Baby's Friend" and "Mother Winslow's Soothing Syrup," both of which contained opium. He also spoke against fee splitting and other professional evils.<sup>6</sup> Following this appointment, Dr. Will went on to become president of the Society of Clinical Surgeons (1911-1912), the American Surgical Association (1913-1914), and the American College of Surgeons (1917-1918, 1919).



*Dr. Charlie*

After joining the Doctors Mayo in their practice in 1888, Dr. Charles H. Mayo became prominent in the activities of a number of professional associations. Like his father and brother, he served as president of the Minnesota State Medical Association (1905-1906). At the annual meeting held in the Masonic Temple in

Minneapolis, June 19-20, 1906, Dr. Charlie presented his presidential address, "Surgical Opportunity."<sup>7</sup> In contrast to the topics covered in previous years, the talk was later cited as a "Model Medical Society Paper" in the state journal.<sup>8</sup> At the time, the editors noted that "besides its proper brevity" and "clearness of outline," Dr. Charlie's paper pointed to the diagnostician as the "coming man" in medicine, and society members, through the study of the "simple, complex, obscure" symptoms of their patients, would generate a wealth of information for discussion at meetings and for publication as "model" papers.

Dr. Charlie was president of other national medical organizations, including the Western Surgical Association (1911-1912), the American Medical Association (1916-1917), the American College of Surgeons (1924-1925), and the American Surgical Association (1931-1932). During his stint as AMA president, the organization's annual meeting was held in New York City in the first week of June 1917. A patriotic rally highlighted the affair and included among its speakers ex-President Theodore Roosevelt. The atmosphere of the meeting was filled with talk of war and medical preparedness.

According to the *Journal-Lancet*, "Dr. Charles outdid himself in his presidential address. . . . as he created a tremendous impression, for he spoke with his usual



PHOTOS COURTESY OF THE MAYO HISTORICAL UNIT

Dr. Charles H. Mayo, Dr. William W. Mayo, and Dr. William J. Mayo.

conviction and the force demanded by the occasion."<sup>9</sup> His address focused on "War's Influence on Medicine." It was a timely message for the unstable era.

While calling for support of the war effort by his fellow physicians, Dr. Charlie reviewed the varied accomplishments of American citizens in all walks of life. He noted the need for compulsory education of the nation's young, stating: "It will soon be recognized that the citizen is best made when a child."<sup>10</sup> He paid tribute

to the contributions of military medicine and the National Board of Medical Examiners, the Council on Medical Education, and the American College of Surgeons.

MM

*Clark Nelson is an archivist/historian with the Mayo Historical Unit, Mayo Foundation, Rochester, Minnesota. This essay was adapted from a historical profile he wrote for the January issue of the Mayo Clinic Proceedings.*

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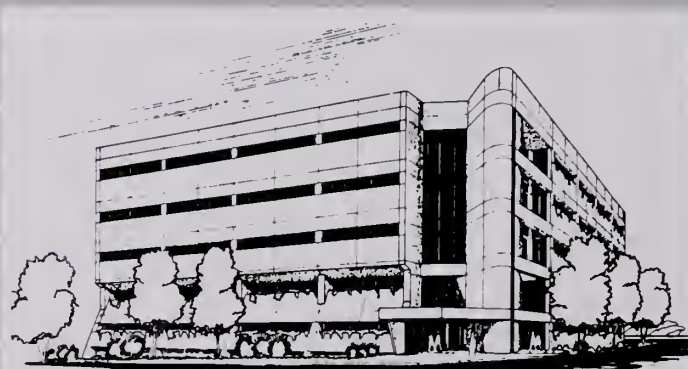
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# Celestial Medicine

Lloyd A. Wells, Ph.D., M.D.

Clinicians realize that patients near death often report vivid fantasies, and many of them become frankly delusional. More than 15 years ago I met an 84-year-old moribund physician whose happy delusion has often occurred to me, particularly in these recent years of for-profit medicine, cost containment, DRGs, Medicare, and insurance denials.

The patient was a retired ophthalmologist with a widely metastatic colon carcinoma. He had been married for almost 50 years and had a close relationship with his wife. He had three children, all professionals, but none had become a physician as he had hoped. He had a long-standing interest in the history of medicine. Professionally, he had been successful in his clinical research and academic advancement. He had come to Mayo Clinic, more than a thousand miles from his home, because he thought he should be treated there after having had an unusual experience.

Several months before this hospitalization he had had a strange experience. He was not sure whether he had been sleeping, but his thoughts had certainly been wandering when he noticed that Dr. William J. Mayo was seated next to him. The patient was startled but greeted Dr. Mayo and said he was sure that the doctor had died many years ago.

"Don't be afraid," Dr. Mayo told him. "Of course I've been gone for years, but we keep going, you see, and we've had our eyes on you for some time, you know."

"What do you mean?"

"Well, those of you who believe in an afterlife seem to think everyone magically lives forever. Actually, people continue to get sick. We are able to keep them going forever because we have the best medical corps ever assembled."

"What do you mean?" asked our old physician.

"We have to care for incredible illnesses, all that you have down here and many more, and we have to keep

everyone alive. I head our administration, and my brother is chairman of surgery. John Hunter is in charge of the research branch, and Galen has headed internal medicine for almost two thousand years now—extraordinary man. But Felix Platter has been chairman of ophthalmology for almost five hundred years, and he's getting tired and wants to devote more time to research. We'd like you to be chairman when you join us."

Thrilled, the old ophthalmologist agreed. Over the next several weeks he claimed he had had several more visits from Mayo and others. Platter seemed playful, spoke with a thick accent, but was unaware of some recent developments in the specialty. Galen was brilliant, had a wonderful sense of humor, and spoke excellent but non-idiomatic English. The ophthalmologist knew he was dying, was comfortable with his family, but clearly looked forward to his "promotion." He also realized that neuroleptic treatment might make his fantasy end, and he asked that he not be treated. His wife concurred. He died after a brief hospitalization.



ILLUSTRATION BY RICK PETERSON

There is nothing uncanny about this delusional system, which incorporated long-standing interests of the patient as he dealt with rapidly approaching death through denial and grandiosity, assisted by his deteriorating cognitive capacities. Such processes are not uncommon.

As the years have gone by, as medicine has faced DRGs, insurance denials, and increasing control by government and other third parties, many physicians have become discouraged. Some have left the profession. Many have indicated that they wish they were in other professions. Some have cravenly adopted the entrepreneurial ethos so prevalent at this time, staying in the profession but abandoning their claim to be considered professionals. All of us become discouraged from time to time.

*Continued*



If we think of medicine as a transient profession, a recent historical occurrence, we have grounds to be discouraged. But if we think of ourselves as very small parts of an ancient, ongoing tradition of healing, there is less room for despair. We have tools at our command that our professional ancestors could not dream of. We stand on their shoulders, and our successors, who will have tools that we do not dream about, will stand on ours.

And our lives are not really so bad, either. We need not fear mob justice because of dissections; it is unlikely that our research on pulmonary circulation will make our views on the Trinity suspect, and that we shall, therefore, be burned at the stake, as was Michael Servetus. Few physicians die with an estate of three pennies, as was the lot of Agrippa.

It is a comforting fantasy that we and they mingle together in some sort of timeless communion of physicians. Surely our plight diminishes when compared with theirs, and surely we can at least try to imagine the faint echo of their encouragement as we attempt to serve our patients in spite of many obstacles.

Let us endeavor to be sufficiently good physicians and join the celestial group practice! MM

*Lloyd Wells is head of the Section of Child and Adolescent Psychiatry at the Mayo Clinic and associate professor of psychiatry at the Mayo Medical School, Rochester,*

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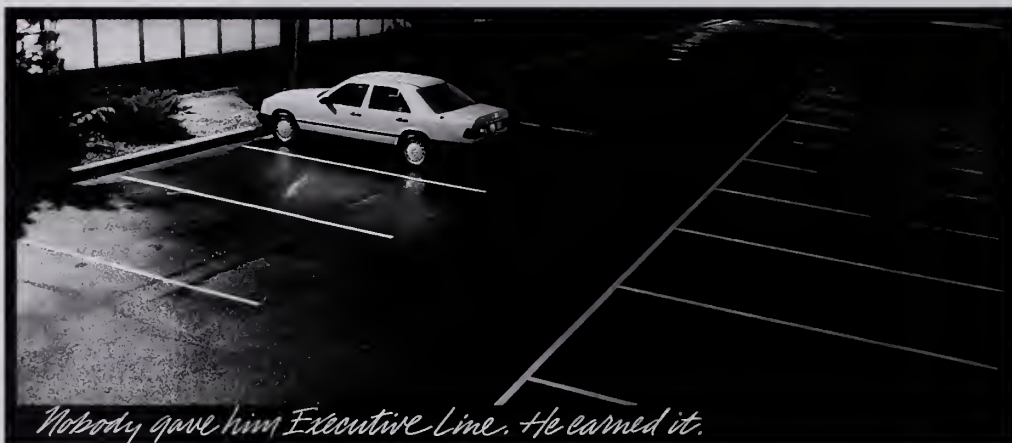
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# ...With Liberty and Access for All

## Minnesota's Quest for Guaranteed Affordable Health Insurance



**M**innesota legislator Paul Ogren knows firsthand about the need for guaranteed affordable health care. Twelve years ago, Ogren, working as a driver/delivery person, and his wife, Sherryl, were eking out a living on the West Coast when Sherryl became pregnant. Unable to get health insurance, the couple paid for \$2,000 in prenatal care and delivery costs out of pocket.

Then, at the age of two weeks, their son, Sam, developed pyloric stenosis. "We were told that before we could be admitted to the hospital, we would have to bring in all of our checking and savings accounts, which we did," Ogren said. "And while they did a marvelous job helping my son, everything we owned, the few thousand dollars we had in savings, was cleaned out."

Ogren, a passionate and articulate DFLer from Aitkin, was still paying off the bill when Sam turned five. "My wife and I were very hard-working people, but yet our backs were up against the wall. It was an investment I'd make again in a second, but it made things very difficult for us for some time."

Meanwhile, in a strange coincidence, the first-born son of Ogren's friend developed pyloric stenosis at about the same time as Sam. Only in this case, his friend's employer picked up the health care bill. Every penny of it.

"What happened to us," said Ogren, now remarried, "happens to far too many people. And that certainly awakened in me the need for comprehensive health insurance."

Ogren fears the drama played out in his life more than a decade ago is being replayed daily in thousands of Minnesota homes today. His fears may be well-founded. Currently, an estimated 340,000 to 400,000 Minnesotans are uninsured, and they will leave behind about \$120 million in bad debts and charity care for physicians and hospitals in 1990. Those costs are ultimately passed on to other consumers in the form of higher insurance premiums. Add in soaring technology costs, which further inflate premiums, and adequate health care becomes out of reach for more Minnesotans.

Ogren's personal crisis was a catalyst in his sponsorship of last year's Healthspan bill, a controversial health insurance plan that would have covered uninsured Minnesotans through a new payroll tax on state businesses. This year, Ogren followed up with a proposed state constitutional amendment to guarantee health insurance for all Minnesotans. While neither health care proposal has been adopted by the Legislature, the plans have awakened legislators, providers, employers, and others to what many claim is a pressing need for expanding health care access—indeed, even for wholesale reform of the state's health-care system.

Certainly Ogren's bills, and another bill this year co-authored by Senate Minority Leader Duane Benson, IR-Lanesboro, have sparked discussion. It seems nearly everyone—from liberals to conservatives to business, physician, labor, and consumer

*By Harvey Meyer*



**“What happened to us happens to far too many people. And that awakened in me the need for comprehensive health insurance.”—Paul Ogren**

groups—endorses the idea of guaranteed accessible health care for all. Speaking for many on the subject, James Tiede, M.D., chairperson of the MMA Task Force on the Uninsured, calls affordable health care “a right of citizenship.”

Not surprisingly, the debate gets bogged down over how a more-accessible system should be structured, how much it should cost, where the funds should come from, and whether comprehensive health care reform—including cost controls, patient copayments, and other measures that a revamped system implies—should also be sought.

Some business leaders worry that discussion on the health care access issue will eventually spawn a multi-million-dollar program. And they fear that businesses would be saddled with paying for most, if not all, of its cost.

While some critics say Minnesota is jumping the gun with proposals to expand access, that it should wait for the federal government to craft a national health care plan, others believe the state should forge full speed ahead. Besides, U.S. Sen. Dave Durenberger and other federal policymakers say it'll be several years before Congress implements a national plan. And, some say, it's wrong to hold Minnesota's uninsured hostage until the federal government makes a move.

One thing is certain as the debate heats up over access to affordable health care for all Minnesotans: the issue isn't going to die. Not when, according to one poll, 8 out of 10 Minnesotans favor guaranteed health insurance for all state citizens. Not when an estimated 8 percent to 10 percent of Minnesotans are uninsured at any one time. And not when, according to a recent survey by the university's Division of Health Services Research and Policy, nearly one-tenth of all Minnesota farm families spend an astounding 40 percent of their net income on health insurance and services (see “Health Insurance Coverage of Minnesota Farm Families,” page 35).

### *The Health Care Access Commission*

Despite these alarming statistics, Minnesota is generally considered to be a national leader in providing effective health care, according to an interim report of the Minnesota Health Care Access Commission. The commission, formed by lawmakers last year in response to Ogren's Healthspan proposal, is charged with recommending to the Legislature next January a plan to provide access to health care for all state residents.

Still, the commission's executive director, James Koppel, says Minnesota's health care accessibility can—and should—be improved. Not just for the uninsured, but also for the underinsured. One study cited by the commission estimated that between 5 percent and 18 percent of U.S. citizens have private insurance that leaves

them underinsured. (National researchers have defined the underinsured as those facing a significant risk of spending 10 percent or more of their family income on health care expenses.)

In its interim report released in late February, the commission says studies have established direct links between being uninsured and harm to personal health. A 1986 national survey by the Robert Wood Johnson Foundation determined that the uninsured were twice as likely as the insured to report needing medical care but not receiving it, and three times as likely to report economic barriers to care. The uninsured are less likely to visit a physician when they are seriously ill, obtain early prenatal care and adequate immunizations for their children, and receive needed blood-pressure checks. A Council of Hospital Corporations study revealed significantly higher mortality rates for the uninsured compared with patients who have HMO or commercial insurance, suggesting uninsured patients may delay seeking care for financial reasons.

Access commission member Charles Oberg, M.D., a pediatrician at the Hennepin County Medical Center, says he has witnessed firsthand a significant increase in the number of uninsured during his 10 years at the medical center. “You see it all the time, where people are delaying care . . . because of financial concerns,” Oberg said.

“For instance,” he said, “six months ago there was a young adolescent who had a bladder infection but whose parents didn't have insurance. The parents felt, with time, it would go away or get better, but in about a week the infection had spread to the kidney, a much more serious problem that required hospitalization and intravenous antibiotics. Had she come in earlier, the infection could have been treated with antibiotics.”

Currently, the cost of caring for the uninsured and underinsured is passed on to the patients who pay, according to the access commission's interim report. A Chicago benefits consulting firm estimated that 29.5 percent of the 1989 increases in employer premiums were due to this so-called cost-shifting. Others say the numbers are significant but can't be so precisely determined.

Clearly, offering access to affordable health care to needy Minnesotans must be a top priority. But again the questions: How to do it? How much should it cost? And where should the funds come from?

### *Defining Access*

But before tackling these issues, a more basic question is being asked: What does accessible health care mean?

“Accessible health care doesn't mean every Minnesotan will be eligible for a double-lung transplant, or wigs . . . or every benefit there is that's mandated,” said

Koppel. "What it does mean is we're looking at a set of manageable benefits and within a managed-cared environment. . . . Some level of benefits should, if possible, be agreed upon for everyone. Our goal is to have a plan that is affordable for all Minnesotans, and if it's not affordable, then we don't have an accessible plan."

One indication of inaccessibility for some Minnesotans is that infant mortality among the uninsured is four times higher than the state average. Some observers have suggested a link between the higher death rate and the uninsured being unable to afford prenatal and other infant care.

### ***What's Working in Other Places?***

Addressing questions about structure, cost, and funding, members of the access commission have scoured access and comprehensive reform plans used in Canada, Norway, the United Kingdom, West Germany, Florida, Hawaii, Massachusetts, California, Oregon, Wisconsin, New York, Washington, and Ohio.

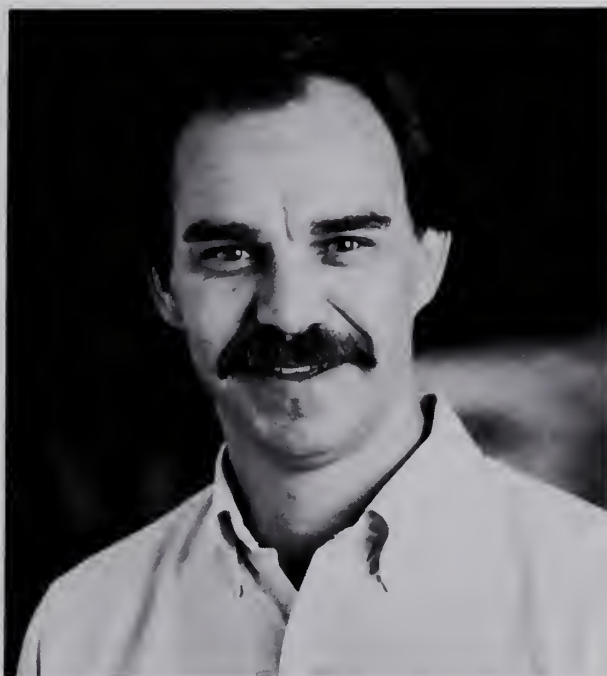
#### ***Canada's plan***

Canada's national health plan is one of the more oft-cited systems. The Canadian system, which allows provinces to operate their own plans and receive federal matching funds, includes the following principles: comprehensive coverage (including long-term care), access for all residents, transference of coverage to other provinces, and public administration.

Under the Canadian system, the government is the nation's health insurance company, collecting its premiums through taxes and paying the doctors' and hospital bills out of public funds. Doctors, whose fees are determined in highly public negotiations between the medical associations and the government, are in private practice and bill the government for their services.

Patients in Canada are not billed for covered services, and providers may not charge additional fees for such services. At present, patients can choose their own doctors and how often they see them. Long-term care at home, in day care, foster homes, group homes, and nursing homes is available for almost all Canadian elderly and disabled adults.

The Health Care Campaign of Minnesota (HCCM), a coalition of organizations ranging from the Senior Coalition and Minnesota Nurses Association to Group



*Rep. Paul Ogren, DFL-Aitkin, author of last year's Healthspan bill and a proponent of a state constitutional amendment to guarantee health insurance coverage of all Minnesotans.*

Health, Inc., is a proponent of several features of the Canadian system. Kip Sullivan, coordinator for the HCCM, says the sole-source funding and provider budgeting measures are largely responsible for allowing Canada to offer health care access to everyone at about 70 percent of U.S. health care costs.

Other backers of the Canadian system note that the country's citizens express a high level of satisfaction with their health care system. And they often point out two statistics: Canada spends about 8.6 percent of its gross national product on health (compared with 11.2 percent for the United States), and infant mortality is 8 per 1,000 (compared with 11 per 1,000 in the United States).

But critics of the Canadian system say that it could put insurance companies and HMOs out of business and that patients have less access to sophisticated technology. A committee report at the American Medical Association's annual meeting last June denounced Canada's system as "socialized medicine managed by an ever-enlarging and more expensive bureaucracy, financed by ever-increasing taxation and featuring rationing, shortages, health-care waiting lists, and an absence of private-sector alternatives."

According to a published account, waits for certain kinds of elective surgery and special tests may range from six months to two years in Canada. Critics of the system say it's doubtful such extended waits would be tolerated by most Americans, who have grown accustomed to having most elective surgeries performed when they want them.

#### ***Oregon's plan***

Stateside, Oregon's method of coverage has also received considerable attention. If a federal waiver is approved, the Oregon plan will offer Medicaid benefits to uninsured Oregonians with incomes under 100 percent of the poverty level. The new law mandates employers to provide insurance by 1994 or pay a tax; gives tax credits to small employers who begin to provide employee health benefits; creates a new group insurance pool for small employers; and allows small employers who have not insured in the past to purchase basic plans that include less than the mandated benefits. The entire plan is funded by state revenues and employer and employee premiums.

The Oregon Legislature assumed the state could only



"You see it all the time, where people are delaying care because of financial concerns."—Charles Oberg, M.D.

afford to expand its system by managing the increased access and prioritizing health services. Consequently, a capped budget will be used to fund services from highest to lowest priority. Lower-priority services will not be covered when the budget reaches capacity.

In effect, Oregon has chosen explicitly to ration access based on community values for at least two populations: those families and children who receive Medicaid and the previously uninsured covered by a new "basic services" plan.

### *The Pepper Commission's plan*

The access commission and others are also studying a wide array of other proposals aimed at expanding health care access. Included among them is the national plan recently offered by the much-publicized, 15-member Pepper Commission. Since any national plan probably won't be implemented for several years—if then—the Pepper Commission's proposal may include plans that may be adaptable to a Minnesota plan.

The bipartisan Pepper Commission, voting in early March, called for expansion of federal spending to provide health insurance coverage to the estimated 37 million uninsured Americans. The plan would require health insurance for every American either through the work force or a government-run insurance program. It would also lend substantial government aid to the elderly and disabled needing nursing home care or home health care.

But opposition from business groups, the White House, and key lawmakers could well doom the plan. Sen. Durenberger, the Minnesota Republican who is vice chairman of the commission, has said he supports parts of the plan, such as coverage of all children to age 22 and all pregnant women, but he would have preferred that the plan tie guaranteed universal access to comprehensive health care system reform. Durenberger also objected to the "pay or play" \$20 billion tax assessment on employers. Others criticized the Pepper proposal for failing to identify how the estimated \$66 billion govern-

ment share would be funded.

### *The AMA's plan*

Another plan the commission is examining is the American Medical Association's "Health Access America" proposal, which would expand Medicaid to provide adequate benefits to everyone below the poverty level. The AMA plan also would require employers to provide medical insurance to full-time employees, creating tax incentives and state risk pools to enable new and small businesses to afford such coverage.

The AMA plan also calls for establishing state risk pools to provide group insurance policies for those who can't afford coverage under the current system—including small businesses and the self-employed—and for individuals whose illnesses make them medically uninsurable.

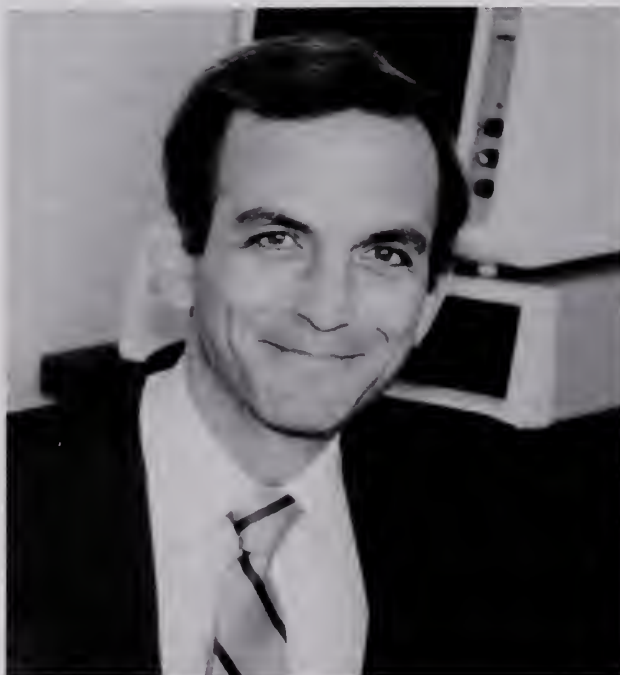
### *The State of Our State*

Health policy experts' review of other health care access plans should not be interpreted as a sign that Minnesota's access problems are horrific. Indeed, Minnesota, more than most states, has developed programs that offer health care access to many of its residents.

"As far as what stage we're in, we're in adolescence right now," said the MMA's Tiede. "That means we've got great visions and great hope of doing better."

Currently, Medical Assistance, the state's Medicaid program, includes all the populations allowed by federal law—families (with children) whose incomes are at or below 133 percent of the Aid to Families with Dependent Children grant amounts (equivalent to \$621 per month for three children and one parent); pregnant women and children up to age one whose family incomes are at or below 185 percent of the poverty level; and other people whose incomes are at or below 115 percent of the poverty level, including those who are blind, 65 or older, or disabled.

The state also offers the General Assistance Medical Care program, available to people who receive General



*James Koppel, executive director, Health Care Access Commission, charged with recommending to the 1991 Legislature a plan to provide access to health care for all state residents.*

Assistance—primarily young, single adults, many of whom are mentally ill and/or chemically dependent. There's also the Minnesota Comprehensive Health Association (MCHA), which offers otherwise uninsurable Minnesotans an opportunity to purchase health insurance at a price monitored by the MCHA. Finally, the Children's Health Plan (CHP) provides primary and preventive care for children age one to eight whose families have incomes at or below 185 percent of the poverty level. Effective January 1, 1991, CHP will enroll children through age 17, and as *Minnesota Medicine* goes to press, the Legislature is considering further expansions to the plan.

"As far as access is concerned, we have a very comprehensive system in Minnesota, much better than in most states," said Koppel. "On the other hand, we have about 10 percent of the people who don't have access, and we need to take basic steps to provide that level of access. Hopefully, then, we can set a model that would be consistent with long-term reform."

### Minnesota proposals

Gaps in Minnesota's health care coverage spurred legislators Ogren and Benson to propose bills that would improve access and offer some attempts at reform.

Ogren's 1989 Healthspan bill, which is credited by many with sparking serious discussions on health care access and reform in the state, was designed to provide all uninsured Minnesotans with a basic set of health care services. Under Healthspan, a new state commission would have arranged coverage for the uninsured with health insurers, nonprofit health service plans, and HMOs. Lengthy hospitalizations, costly high-technology procedures, and certain other catastrophic health care services would not have been covered by the \$150 million-per-year plan, which targeted payroll taxes and enrollee premiums as funding sources.

The Legislature denied funding for Healthspan but established the Health Care Access Commission to recommend the structure, cost, and funding sources for an



*James Tiede, M.D., chairperson, MMA Task Force on the Uninsured. Calls affordable health care "a right of citizenship."*

accessible health care system. The commission's recommendations are due January 1, 1991. Meanwhile, Ogren came back this year with a bill proposing a state constitutional amendment to "guarantee affordable health insurance for all Minnesota residents." The bill, which never received a committee hearing, contained no reference to cost or funding sources.

The Minnesota Medical Association backs the idea of holding a referendum to assess citizen support for requiring Minnesota to guarantee affordable health insurance for all residents. But MMA President Robert Christensen, M.D., says any referendum language should be accompanied by a financial impact statement.

"The question by itself posed to anybody is like apple pie and motherhood," Christensen said. "Of course, everyone's for it. But you've also got to know where those funds will come from and how much a new program will cost."

Also this year, Sen. Benson proposed a bill offering basic health coverage for uninsured working Minnesotans who have taxable yearly incomes of \$14,000 or less. In the long run, Benson said, the plan might actually save money by diverting uninsured Minnesotans from Medical Assistance.

Under Benson's proposal, a person with a taxable income of \$5,500 would have his or her state income tax cover 100 percent of the health insurance premium. A sliding scale would determine state coverage for people with higher incomes. Someone earning \$14,000 a year would have just 10 percent of the cost covered.

Benson's bill also included an incentive for preventive care, and it required patients to share in the cost of a doctor's visit. "People tend to overutilize the system if all costs are paid," said Benson. With his bill, he said, "people will think before going to the ER with a hangnail." Like Ogren's bill, Benson's died in committee.

### Complicating the issue . . .

Meanwhile, the Health Care Access Commission has run into its own snags in studying how access for all Minne-

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"Our goal is to have a plan that is affordable for all Minnesotans, and if it's not affordable, then we don't have an accessible plan."—James Koppel



sotans might be expanded. Many observers agree that one component of expanding access should be a basic health care benefits package for all Minnesotans. The problem is, however, the federal Employee Retirement Income Security Act governs employee benefit programs and preempts state statutes. The federal law thus restricts any requirements the state might try to impose on Minnesota's employees, said John Klein, research director for the access commission.

"If the goal is for . . . the state to require all firms to have the same floor of benefits, that's not possible under ERISA," Klein said. "There may be other ways to encourage employers to continue providing benefits or start providing benefits. And that's something we'll be investigating in other states and doing our own independent legal research" as to what might be possible.

#### Physicians' role

Development of a basic benefits package is where the MMA can perhaps offer the most assistance in the state's effort to widen health care access and/or institute reform measures, said the MMA's Christensen. The MMA has just named A. Stuart Hanson, M.D., as chairperson of a new task force whose purpose will be to develop a basic benefits package that it can recommend to the access commission and other state health policymakers.

Christensen argues that doctors are perhaps uniquely qualified to suggest what ought to be regarded as essential benefits. Still, defining what constitutes essential care will not be an easy task, since physicians will have to balance the individuals' health care wants with the state's needs to control costs.

While on the one hand offering a basic benefits package for the uninsured expands access and could, therefore, cost the state money, restricting the number of procedures the state pays for, either partially or fully, for people enrolled in Medical Assistance and General Assistance Medical Care, would save some funds.



*A. Stuart Hanson, M.D., who chairs a new MMA task force charged with developing a basic benefits package to recommend to state policymakers.*

#### Cost-control measures

Christensen emphasizes consumer cost-sharing as a cost-control measure that should accompany any widening of health care access. Patient copayments, even with a basic benefits package, are necessary to rein in costs, he said.

"The copayments could be income-related," Christensen said, "but they should make patients think that whatever care they get should have a value. If you don't have patients pay early on, costs will go out of control. Of course, we also want to make sure that if there's a horrible illness, that it won't bankrupt people."

Quite expectedly, labor unions, which have warred with employers on the copayment issue, are none

too keen about the possibility of further expanding copayments. Says Tobey Lapakko, a lobbyist with the AFL-CIO, "Copayments are something we've kept fighting."

Physician use of "practice parameters," which offer doctors guidelines on what cost-efficient and quality steps to take in certain patients' cases, can also help reduce unnecessary spending, Christensen said. By having these practice parameters to consult, physicians may discover, for example, that using expensive technology is unnecessary in given cases, he said.

Other cost-control measures that have been discussed in tandem with expanding access include capping payments to providers; rationing care for certain populations by setting priorities within fixed health care budgets; rate-setting; instituting deductibles; and instituting a single-payer system, perhaps like Canada's, with the government serving as the purchaser for all patients.

One much-discussed, nonphysician-related proposal that would control costs, and make health care accessible to more Minnesotans, involves eliminating state-mandated health benefits, said Mike Hickey, a lobbyist for the National Federation of Independent Businesses. State law requires health insurers to offer businesses and individuals a set of benefits, and an employer or person

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"We're very much against slapping a payroll tax on employers, because it would have a very detrimental effect on job expansion, or even job retention, if the tax were high enough."—Mike Hickey

**"As far as access is concerned, we have a very comprehensive system in Minnesota, much better than in most states."—James Koppel**

must either buy the entire package or nothing. This all-or-nothing proposition is cost-prohibitive for many businesses, especially smaller firms, Hickey said.

"Two good examples of unnecessary mandated benefits are inpatient and outpatient chemical dependency and inpatient and outpatient mental illness," said Hickey. "If you're going to offer health insurance to your employees, you've got to have the entire package. That's the part that's ludicrous. You can't offer A through K, you've got to offer A through Z."

"I'm not telling anybody not to have insurance," Hickey said, "but if you have all these price increases in health care, and then you throw in these state mandates, eventually, companies will quit offering health insurance or they'll never offer it."

The access commission will no doubt examine all these cost-controlling measures, and others, as it formulates a recommendation to present to the Legislature. The commission will also be studying the wide disparity in the cost of administering health programs between the government and the private sector. Other questions the commission is expected to address: Who will administer any new or modified health plan? How will doctors and hospitals be paid under any new health care plan?

Of course, the commission will research ways to finance a system that widens health care access in Minnesota. Not surprisingly, funding is perhaps the most controversial item in the debate on expanding access.

### ***Funding Access to Health Care***

State initiatives to expand access tend to include more than one source of revenue, according to the commission's interim report. The most common are general revenues, "sin" taxes, new payroll taxes on employers and employees, income taxes applied to the cost of employer-paid health insurance, and participant premiums.

Said Hickey, "We're very much against slapping a payroll tax on employers, because it would have a very detrimental effect on job expansion, or even job retention, if the tax were high enough. We feel that the

state should pay for any uninsured program because we feel that [expanding access to health care] is a societal problem," not the sole responsibility of employers.

Any funding plan, whether for improving access or for more comprehensive reform, shouldn't be based on employer responsibility, "which is kind of a hackneyed approach that's unique to the industrialized world," said Rep. Ogren. "It should be based on an ability to pay, based on income and profit. We shouldn't rely on user fees, property taxes, etc."

While Koppel isn't sure yet what funding source, or sources, the access commission will recommend to the Legislature, he is certain whatever plan is selected will be costly. Thus, winning support for the commission's funding plan will be an uphill battle.

"We were told to come back with a program that will cost \$150 million or less per year, and we will have a program that will cost \$150 million or less per year," Koppel said. But that's \$300 million a biennium—a lot of money for a state that's already in a deficit. Regardless of public opinion, coming up with that money will be difficult, he concedes.

Ideally, Koppel said, one word will guide the commission as it formulates its recommendation to the Legislature: simplicity. "Our health care system is eventually going to become simpler, so we should keep our recommendations consistent with that idea," he said.

"Maybe we can take small steps now to improve access, but we should be looking down the road all the while, trying to be consistent with, or at least setting the stage for, larger reform that's got to occur at the federal level eventually."

While the issue of affordable health care for all Minnesotans poses difficult challenges, MMA's Christensen is confident acceptable solutions will be found. "In Minnesota, we have the type of people who will go the extra mile, put in the extra effort, to make something better," he said. "And that's why, ultimately, I'm optimistic health care access problems will be resolved."

**MM**

*Harvey Meyer is a Minneapolis free-lance writer.*



*Senate Minority Leader Duane Benson proposed a bill this year offering basic health care coverage for uninsured working Minnesotans who have taxable yearly incomes of \$14,000 or less.*



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Examples:

1. Benson RC Jr.: Laser photodynamic therapy for bladder cancer. *Mayo Clinic Proc* 61:859-864, 1986.
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# Health Insurance Coverage of Minnesota Farm Families

John E. Kralewski, Ph.D., Janet Shapiro, B.A., Hung-Ching Chan, M.P.H.,  
Kevan Edwards, M.A., and Yuanli Liu, M.S.

## ABSTRACT

This study of 1,482 farm families assesses the extent and cost of health insurance coverage among Minnesota farm families and finds that these families are buying less insurance coverage than urban families, while paying a higher proportion of their income for these premiums. More than three-fourths of the farm families surveyed buy their health insurance plan themselves and pay for it out of pocket. Their plans, on average, are slightly less expensive than employer-provided plans in urban areas, but they provide much less coverage and have more copayments and deductibles. Unlike their urban counterparts, who often choose health plans for convenience of location or freedom to choose physicians, farmers generally choose plans on the basis of costs and services provided. About 7 percent of farm families are without insurance, and many others are underinsured because they cannot afford to purchase an adequate plan.

Recent changes in the way health services are organized and financed coupled with changes in the rural economy have raised concerns over the continued availability of health care in rural areas. Health care costs are increasing at two to three times the rate of inflation, and many farm families and employers are finding health insurance costs to be prohibitive. This article reports the findings of a study designed in part to evaluate the magnitude of this problem in Minnesota.

## Demographic Makeup of Sample

A random proportionate sample of 1,482 farm families was surveyed. The mean family size was 3.3 with a range of one to 12. There were 97 (6.8%) single-member households and 135 (9.4%) households with six or more members. About 7% of the individuals in the sample were 65 years old or older.

More than half the households (54%) had at least one person working in an off-farm job, and 18% had two or more working off the farm. About half of those with off-farm jobs are employed part-time, at an average of 20 hours work per week. The wives' work accounts for 51.9% of the off-farm employment. Thirty-eight percent of the farm wives work at least part time off the farm, and of those working in off-farm jobs, 44.2% hold full-time jobs.

Although nearly half the farm families have at least \$5,000 income from non-farm sources each year, the majority (67%) receive more than 75% of their income from farming. Only 15% of the respondents noted that half or more of their income is from off-farm activities. Net income,

however, is quite low. More than 16% of the families report an annual income of \$10,000 or less, and 45% report a net income of less than \$20,000. It is important to note, however, that net income for farm families underrepresents actual income, because certain expenses such as real estate, vehicles, and home-grown food may not be included in the determination of personal income.

## Health Insurance Coverage

Slightly less than 7% (6.7%) of the farm families included in our study have no health insurance, and another 2.7% have at least one person in the household who is not covered. As shown in Table 1, assuming no differences in family size between those with and without insurance, 9.4% of the farm population in Minnesota is without any type of health insurance. Nearly one-third of those without health insurance had some type of coverage up to 1983. Thirty percent of those now without health insurance dropped their plans between 1983 and 1988. A high proportion (70%) of the uninsured families noted cost as the major factor influencing their decision not to purchase insurance. Moreover, 25% of those with insurance said they had changed plans during the past two years because of premium costs.

## Health Insurance Costs

More than three-fourths of the families buy their health insurance plan themselves and pay for it out of pocket. About 60% of those who obtain their plans through off-farm employment do so because of the wife's job.

Most of those with insurance purchase their plans from an independent insurance agent (67.7%),



Table 1

*Number of health insurance plans*

| Number of Plans | Number of Households | Percent |
|-----------------|----------------------|---------|
| 1 plan*         | 907                  | 73.3%   |
| 2 plans*        | 213                  | 17.2    |
| more than 2*    | 35                   | 2.8     |
| no plan         | 82                   | 6.7     |

\*Out of the families that have at least one plan, 2.7% have at least one family member who has no health insurance coverage; 9.4% of the individuals included in the study are uninsured.

Table 2

*The most important reason for selecting health insurance plans (n = 1,304)*

| Reason                             | Number of Households | Percent |
|------------------------------------|----------------------|---------|
| Amount of premium                  | 501                  | 38.4    |
| Amount of copayment or deductibles | 54                   | 4.1     |
| Services that are covered          | 319                  | 24.4    |
| Freedom to choose doctors          | 69                   | 5.2     |
| Convenience of location            | 39                   | 2.2     |
| Reputation of doctors              | 11                   | .8      |
| No other plan available            | 74                   | 5.7     |
| Other                              | 237                  | 18.2    |

Note: Respondents were asked to rank the reasons: 1 = most important; 2 = second most important; 3 = third most important.

and most have private-sector insurance plans such as American Family, State Farm, and Time Insurance Company. About 30% have Blue Cross/Blue Shield coverage, and less than 1% belong to an HMO. Only about half said they considered other plans before buying their current insurance. Cost of the plan and the number of services covered were noted as the two most important factors determining plan choice. As shown in Table 2, 38.4% of the families listed premium costs as the most important factor influencing their choice. Another 20% noted premium costs as the second most important factor causing them to buy their current plan. Respondents gave very low ratings to freedom to choose their

doctor, convenience of location, and reputation of providers as factors influencing their choice, although 20% of the families considered freedom to choose their doctor an important first- or second-level condition. More than 95% of the respondents indicated that other plans were available when they made their choice.

Most of the plans have coinsurance and deductible provisions. The usual coinsurance provision is an 80/20 plan in which the enrollee pays 20% of health care costs. Most have stop-loss provisions at the \$5,000 level. The usual deductible is \$500 for both physician services and hospital care. Most illnesses that include hospitalization, therefore, cost a

minimum of \$1,000 out of pocket plus 20% of the remainder of the bill. On average, farm families spent \$1,179 last year on health care in addition to the cost of their health insurance premium. The average family health insurance premium was \$1,589, and most of the families pay \$150 to \$200 per month for their health insurance.

Health insurance clearly represents a major out-of-pocket expenditure for farm families, and the costs of those programs are causing some of them to go without insurance or to seek low-cost plans that provide limited coverage and high deductible and coinsurance provisions. Unlike their urban counterparts, who often choose health plans for convenience of location or freedom of choice of physicians, farmers generally choose plans on the basis of costs and services covered. It appears that they also often switch plans when they can get a lower-priced health plan or when their premium increases unexpectedly.

*Results of High Insurance Costs*

As a consequence, while only about 7% of the farm families are without insurance, many are underinsured because they cannot afford to purchase an adequate plan. Those with insurance are attempting to buy the most coverage with the least dollars, regardless of convenience of providers, choice of physicians, or reputation of the physicians and hospitals. Even with what appears to be aggressive shopping and a willingness to switch plans, these families are not getting good value for their money. Their plans, on average, are slightly less expensive than employer-provided plans in urban areas, but they provide much less coverage and have more copayments and deductibles. Ninety-nine percent of the health insurance plans now held by these farm families have coinsurance provisions, and 96% have deductibles for physician visits. This compares with 58% and 72%, respectively, for metro-area families. Moreover, while the usual health insurance plan held by urban residents covers a wide range of services, the farm plans tend to be more restrictive. Coverage of

Table 3

*Reason given for not having health insurance (n = 118)*

| Reason                            | Number of Households | Percent |
|-----------------------------------|----------------------|---------|
| Never thought about               | 2                    | 1.7     |
| Not sick often                    | 10                   | 8.5     |
| Don't believe in health insurance | 8                    | 6.8     |
| Too expensive                     | 82                   | 69.5    |
| Unhappy with past insurance       | 8                    | 6.8     |
| Unemployment reasons              | 2                    | 1.7     |
| Rejected — health reasons         | 2                    | 1.7     |
| Other reasons                     | 4                    | 3.4     |

hospital care is at times limited to 30 days per year; deductibles for hospital care and physician services are often \$500 and at times \$1,000 per person; and prescription drugs, dental care, and vision tests are rarely covered.

Not surprisingly, the amount of health insurance purchased by farm families is directly related to income. Thirty-one percent of those with incomes under \$10,000 do not buy a health insurance plan. Some receive Medical Assistance (Medicaid), but many others simply do not have insurance. This is the main component of the uninsured farm families. As shown in Table 3, premium costs are by far the most important factor causing farm families to be uninsured. Nearly 70% of those without health insurance noted costs of the policies as the main reason for not buying insurance. Clearly, the uninsured in this population want health insurance but cannot afford it. It is interesting to note that because of the high deductibles and copayments, the out-of-pocket health care costs for families with health insurance (\$1,187.00) exceeded that spent by families with no health insurance (\$1,063.80). These data could also suggest that uninsured families are not seeking care as freely as those with health insurance.

### *Utilization of Health Care Services*

Although nearly 10% of the farm

population is uninsured, less than 1% of respondents noted that they were denied care during the past year because of inability to pay. Six respondents said they were denied care by a physician, one by a dentist, and five by a hospital. While, statistically, this appears to be a very favorable picture, for those affected it is a tragedy that cannot be explained away by the small proportions. Indeed, the problem runs deeper than that evidenced by those denied care. Another 171 respondents (11.8%) said they delayed seeking care when they needed it during this past year; the majority (53.5%) noted lack of money as the reason for their delay.

It appears that ability to pay influences farm families' use of physician and hospital services. Individuals saw a doctor less often if they were a part of a household where at least one member was without health insurance. Moreover, families with health insurance coverage were twice

as likely to have had a member hospitalized during the past year as families in which no one was insured.

### *Discussion*

These data on health insurance coverage of Minnesota farm families reflect a troubled rural health care economy. More than 18% of the farm families surveyed spend at least 25% of their net income on health insurance and services, and nearly 10% spend a remarkable 40% of their net income on health insurance. For these families, health insurance is one of their major expenditures, rivaling home mortgage costs among urban families. In part, this reflects the depressed farm economy and the relatively low levels of net income. Sixteen percent of the families have less than \$10,000 annual net income, and 79.5% have less than \$35,000. About 25% of the families are at the poverty level according to federal guidelines. As mentioned earlier, the net income figures can be somewhat misleading since many farm families, unlike urban dwellers, often do not spend a significant portion of their personal income on housing and transportation and may have lower food costs. Still, farm families are buying less health insurance coverage than urban families, while paying a higher proportion of their incomes for these premiums.

### *Rural/Urban Comparisons*

As shown in Table 4, these differences in expenditures between urban and rural settings for health insurance premiums are quite dramatic. While families in the Minneapolis/St. Paul metro area spend, on average, \$473 per year out of pocket for their

Table 4

*Metro and farm families' average out-of-pocket spending on health insurance*

| Expense                   | Metro | Farm    |
|---------------------------|-------|---------|
| Health insurance premiums | \$473 | \$1,589 |
| Other health care costs   | \$962 | \$1,179 |

Note: Other health care costs included out-of-pocket payment for physician services, hospital care, dental care, drugs, glasses, etc.



health insurance, rural families average nearly four times more for less coverage. Because they have less coverage, out-of-pocket costs for services are also very high for farm families. On average urban families spent \$962 out of pocket for health services during 1988. Farm families spent \$1,179, and they bought those services from a less expensive source—rural physicians and hospitals. Given those conditions, health insurance coverage in rural areas is very sensitive to both the farm economy and premium costs. Slight changes in income for over half the families would likely cause them to reduce coverage, because they are already paying a very high proportion of their net income for insurance and have few discretionary funds. Premium increases would likely result in the same type of adjustment.

It appears that many farm families obtain lower-cost policies by changing health insurance companies rather than selecting another plan from the current company. About 25.4% of the farm families changed plans during the past two years, most often because of premium costs. Many of these changes quite likely resulted in less coverage.

Because of the high costs of health insurance premiums, farm families are buying plans that have high coinsurance and deductible provisions and have limited coverage outside of physician services and hospital care. Even the physician and hospital coverage often has a \$500 deductible and 20% coinsurance. Some plans have deductibles as high as \$1,500 for the family before the insurance will pay any of the costs. These plans

are basically providing catastrophic illness coverage, but at premiums that are much higher than those charged for catastrophic illness plans in urban areas. For example, one \$333-per-month rural plan has a \$1,000 annual deductible and does not cover vision tests, hearing tests, or dental care.

By comparison, the following plans were offered in the metropolitan area at the time of this survey: A plan offered by Physicians Health Plan, a Minneapolis/St. Paul HMO, would provide full physician coverage with no deductible, hospital coverage with a 20% coinsurance (with a \$900-per-member limit) but no deductible, eye and hearing exams, and prescription drugs with a \$5.50 copay for \$308 per month. For \$288 per month, the Aware Gold Blue Cross/Blue Shield plan would provide a family in Minneapolis/St. Paul 100% coverage of physician services, hospital care with a \$100 deductible per year and a 20% copay (with a maximum copay of \$1,360 per year per family), prescription drugs with a \$4.50 copay, and full coverage of most ancillary services, including 130 hours of outpatient chemical dependency treatment, and 80% coverage for 40 hours of outpatient mental health treatment. MedCenters Health Plan, another HMO, provided even better coverage (no deductible or coinsurance for hospital services) for Minneapolis/St. Paul families for \$236 per month.

### Conclusion

Farm families pay slightly less on average for their health insurance premiums than urban families, but

they get much less coverage. We estimate that farm families are paying between 15% and 20% more for their health insurance plans than they would pay if they were part of a group in Minneapolis. Moreover, they are getting most of their health care from lower-cost providers in rural areas. Under the Medicare program, for example, the cost-based reimbursement formula used to calculate hospital DRG payment and physician payment results in a 20% differential between urban and rural areas. In addition, farm families have traditionally been thought to be low utilizers of services, although it appears from this study that the use patterns are quite comparable to urban areas.

MM

*John Krlewski is director of the Division of Health Services Research and Policy, School of Public Health, University of Minnesota, Minneapolis, Minnesota.*

*Janet Shapiro is a community program specialist and research associate in the Division of Health Service Research and Policy, School of Public Health, University of Minnesota.*

*Hung-Ching Chan, Kevan Edwards, and Yuanli Liu are graduate students in the doctoral studies program in Health Services Research, Policy and Administration, University of Minnesota.*

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# Fatal Hemorrhagic Cystitis Induced by Pelvic Irradiation and Cyclophosphamide Therapy

## Case Reports and Review

William E. Price, M.D., and Loren R. Keldahl, M.D.

### ABSTRACT

The potent cytotoxic drug cyclophosphamide has been used extensively for neoplastic and non-neoplastic diseases. Patients taking this drug may have received or may be receiving pelvic irradiation concurrently. This report describes two patients who developed fatal hemorrhagic cystitis induced by pelvic irradiation and cyclophosphamide therapy. Etiology, incidence, pathologic descriptions, and diagnostic and therapeutic aspects of this entity are described. The incidence and risk of serious, life-threatening bladder hemorrhage from cyclophosphamide therapy is increased by prior or concurrent pelvic irradiation. Alternative cytotoxic, non-urotoxic chemotherapy should be used in these high-risk patients.

The potent cytotoxic alkylating drug cyclophosphamide was introduced in 1958 for treatment of neoplastic and non-neoplastic disorders.<sup>1</sup> Since 1959, reports have appeared describing hemorrhagic cystitis induced by this drug.<sup>2</sup> The incidence of this complication is increased by pelvic irradiation used prior to or concurrently with cyclophosphamide.<sup>3-6</sup> Severe, life-threatening, and fatal cases of hemorrhagic cystitis caused by cyclophosphamide have been documented.<sup>1,6,7</sup> Gross hematuria is a well-known complication of irradiation cystitis.<sup>8</sup> The following case reports describe further instances of this distressing complication.

### Case Reports

#### Case One

An 83-year-old, white female developed Waldenstrom's macroglobulinemia in 1984. She had received irradiation to her pelvis in 1959 for treatment of benign menorrhagia. The lympho-proliferative disorder was treated by her internist with oral cyclophosphamide and prednisone. Hematuria and vesical irritation occurred in October 1988. Cystoscopy (by L.R.K.) showed mucosal ulcerations; cyclophosphamide was discontinued, and treatment was started with high fluid intake and aminocaproic acid. The total cumulative dose of cyclophosphamide was approximately 220 grams. On December 9, 1988, severe hematuria and clot retention occurred, and the patient was hospitalized (by L.R.K.) for cystoscopy, evacuation of clots, fulguration of bleeders, multiple blood transfusions, and continuous bladder irrigation with 0.1% silver nitrate solution. An excretory urogram showed normal kidneys. He-

maturia ceased temporarily, and the patient was discharged.

Episodic hematuria continued, and the patient was hospitalized again December 19, 1988, in clot retention. Emergency cystoscopy (by W.E.P.) under general anesthesia, evacuation of clots, attempted fulguration of bleeders, and biopsy of the bladder disclosed severe, hemorrhagic, ulcerative vesical mucosal changes of the trigone and posterior and lateral bladder walls. The fundus and anterior walls appeared relatively normal. A bladder biopsy subsequently showed inflammatory changes. The significance of these cystoscopic findings will be discussed subsequently.

Severe hemorrhaging continued, and emergency bilateral percutaneous gelfoam embolization of the hypogastric arteries below the gluteal arteries was performed by an interventional radiologist; 2% alum intravesical irrigation was instituted, and the hemorrhage ceased for 48 hours. However, abdominal distention, ileus, and recurrent vesical bleeding developed. Necrosis and perforation of the bladder were suspected. A retrograde cystogram showed no extravasation, and a CT scan of the abdomen disclosed ascites and emphysematous cystitis.

On December 28, 1988, the patient was transferred to the Urology Service at the University of Minnesota Hospital. Bilateral percutaneous nephrostomies were placed December 29, 1988, and the next day cystectomy and bilateral cutaneous ureterostomies were performed. The pathologist described "necrotizing hemorrhagic cystitis consistent with cyclophosphamide effect. Atypia and squamous metaplasia of urothelium, no malignancy."

The postoperative course was



stormy, but recovery was gradually progressing until February 6, 1989, when acute abdominal distention, sepsis, shock, and anuria developed. The patient died on February 7, 1989, 39 days after cystectomy and urinary diversion. An autopsy was not permitted.

### Case Two

A 60-year-old, white female developed severe, intractable hemorrhagic cystitis in 1971 due to cyclophosphamide and pelvic irradiation. She had an extensive pelvic mass due to recurrent carcinoma of the ovary. Open hypogastric artery ligation and cystectomy were technically unfeasible. After failure of multiple attempts to control the hemorrhage by cystoscopic fulguration and instillation of dilute formalin, the bleeding was temporarily controlled by urinary diversion through inlying ureteral catheters and vesical tamponade with an inflated Kearn's bag. However, gram-negative septicemia, disseminated intravascular coagulopathy, renewed hemorrhaging, shock, and renal failure soon intervened, and death followed shortly.

### Discussion

Of the emergency situations that arise in urologic practice, none exceeds the catastrophic magnitude of severe, intractable, life-threatening vesical hemorrhage. Examples of natural causes include invasive neoplasms, tuberculosis, and amyloidosis. The most common iatrogenic causes are cyclophosphamide- and irradiation-induced hemorrhagic cystitis. Extensive studies and literature reviews of cyclophosphamide-induced hemorrhagic cystitis have appeared recently.<sup>1,6</sup> Urologists, physicians prescribing cyclophosphamide, and therapeutic radiologists should be familiar with these studies.

### Etiology and Incidence

Cyclophosphamide administered orally or intravenously is metabolized by the liver into phosphoramide mustard, an active cytotoxic agent, and acrolein, an inactive metabolite excreted in the urine.<sup>6</sup> In 1961, the urotoxicity of cyclophosphamide was demonstrated,<sup>9</sup> but acrolein was not

identified as the offending chemical until 1979.<sup>10</sup> The mode of action of acrolein urotoxicity is not known, nor is there a correlation between the severity of acrolein cystitis and the total cyclophosphamide dose required to produce this complication.<sup>1</sup> Reports indicate that the incidence of hemorrhagic cystitis is higher after intravenous administration (68%) as compared with long-term oral regimens (2% to 40%).<sup>1</sup>

Irradiation damage to normal tissues has long been recognized, the most susceptible tissues being those with the highest mitotic activity. The urinary bladder epithelium and endothelial-lined vascular structures show a high-to-intermediate degree of relative radiosensitivity.<sup>11</sup> After pelvic irradiation, the incidence of hemorrhagic cystitis ranges from 3% to 12%, and this incidence rises to 34% in patients receiving both cyclophosphamide and pelvic irradiation.<sup>3</sup>

Stillwell and Benson<sup>6</sup> have found that 33% of patients with cyclophosphamide hemorrhagic cystitis experience severe and extensive hematuria requiring blood transfusions and local bladder treatment for control. The mortality rate in this group was 12%. Droller and colleagues reported a mortality rate of 75% in a similar group.<sup>12</sup>

### Pathology

A remarkable similarity exists in the descriptions of the tissue damage to the bladder resulting from exposure to acrolein and pelvic irradiation.<sup>1</sup> When acrolein comes in contact with transitional-cell epithelium, necrosis, sloughing, and ulceration occur, accompanied by development of an inflammatory exudate in the lamina propria and muscularis. Thin, abnormal epithelium regenerates showing atypia and occasionally transitional-cell carcinoma.<sup>6</sup> Submucosal telangiectasia is prominent.<sup>1,12</sup> Irradiation damage causes identical changes in the bladder, with the additional feature of severe, necrotizing arteriolitis, occasionally leading to fistulization into the vagina.<sup>13</sup>

One of the authors (L.R.K.) recently removed a portion of the bladder during urinary diversion for

control of total urinary incontinence resulting from a massive irradiation-produced vesico-vaginal fistula. The pathologist's report is of interest to demonstrate the severe degree of tissue damage and pre-malignant epithelial changes that can occur to the bladder from irradiation.

Date: May 19, 1989. Abbott Northwestern Hospital, Minneapolis, Minnesota, Surgical Pathology Report Number 0-89-5877. "Microscopic: The sections show fragments of bladder wall focally lined by transitional epithelium within which changes of atypia are appreciated. The atypical changes include increased nuclear size, mild pleomorphism, hyperchromasia, and occasionally prominent single and multiple nucleoli. Actual dysplastic changes are not identified. The sites of denudement of epithelium are also associated with surface fibrinopurulent exudate and acute and chronic inflammation within the underlying granulation tissue. The inflammatory cell infiltrate is composed of lymphocytes, plasma cells, and many neutrophils. This inflammation extends deep into the stroma to percolate through smooth muscle bundles.

"Within the stroma, endothelial cell atypia and bizarre stromal cells are identified. Intimal fibrosis of larger vessels is noted. Focally, there are areas of extensive stromal fibrosis. These changes, as well as the changes of atypia within the urothelium, are consistent with radiation change. No evidence of malignancy is noted.

"**Diagnosis:** Urinary bladder fragments, ulceration, and inflammation consistent with fistula tract, radiation changes."

Chronic and advanced pathologic changes of the bladder wall from irradiation and cyclophosphamide damage include contraction, fibrosis and rigidity with hydronephrosis, vesicoureteral reflux, and urosepsis.<sup>3</sup>

### Diagnosis

A history of cyclophosphamide therapy and pelvic irradiation is obtained. Excretory urography and cystoscopy with biopsy of the bladder wall are necessary to establish the diagnosis

and determine the presence or absence of malignancy. During massive hemorrhage, the bladder shows extensive mucosal ulceration with diffuse bleeding, granulation tissue formation, and submucosal ecchymoses. Other areas show atrophic-appearing epithelium with submucosal telangiectatic blood vessels that develop into submucosal petechiae upon distending the bladder. The cystoscopic appearance described in Case One probably can be attributed to increased susceptibility to acrolein urotoxicity of the portions of the bladder wall previously damaged by irradiation.

### Treatment

Immediate cessation of cyclophosphamide therapy is prudent with the occurrence of hemorrhagic cystitis. Severe, life-threatening hemorrhage requires prompt hospitalization and supportive measures, i.e., intravenous fluids, blood transfusions, antibiotics, intravenous aminocaproic acid,<sup>6</sup> catheter drainage, and bladder irrigations. Clot urinary retention requires cystoscopic evacuation of clots, biopsy of the bladder wall, and attempted fulguration of bleeders under general anesthesia. Intravesical instillation of 1% to 2.5% formalin solution has been described.<sup>1</sup> For continuing hemorrhage, subgluteal hypogastric artery occlusion,<sup>1,6</sup> intravenous vasopressin,<sup>1</sup> intravesical irrigation with 1% to 2% alum (potassium aluminum sulfate) for 48 hours,<sup>14</sup> and diversion of the urinary stream away from the bladder by ureteral catheters or bilateral nephrostomies are indicated. Should this fail, cystectomy and urinary diversion offer the patient the last chance for survival.<sup>1,6</sup> Levine and Richie<sup>1</sup> describe control of hemorrhage by intravesically instilling 0.2% carboprost-tromethamine, an experimental prostaglandin F<sub>2</sub>-a analog.

Recommendations for prevention of cyclophosphamide-induced cystitis include modalities to dilute the urine and reduce exposure time of the bladder wall to acrolein toxic urine. These include super-hydration, frequent voiding, and intermittent catheterization of patients unable to empty their bladders. Caution is

indicated, since cyclophosphamide may exert an antidiuretic effect on the renal tubules<sup>12</sup> leading to water intoxication. Pharmacotherapies to inactivate acrolein and provide glycosaminoglycans layer protection to vesical epithelium are new and experimental regimens that perhaps hold promise for the future. Included are N-Acetylcysteine (Mucomist), Mesna, prostaglandin E<sub>2</sub>, Sucralfate, and sodium pentosanpolysulfate.<sup>1,6</sup> These drugs are of primary interest to oncologists who initially treat patients with cyclophosphamide, and they are of no value in arresting active hemorrhaging from cyclophosphamide-induced cystitis.

### Comments

Cyclophosphamide is one of the most frequently used cytotoxic agents.<sup>3</sup> An estimated 200,000 patients per year in the United States receive this drug for treatment of a wide variety of neoplastic and non-neoplastic diseases.<sup>1</sup> Spechter<sup>7</sup> (quoted by Levine and Richie<sup>1</sup>) estimates that 10% of this group, or 20,000 patients, will develop cystitis, and that 23% (4,600 patients) of this latter group will die of complications from hemorrhagic cystitis. Thus, the enormous impact of this situation is easily appreciated. In addition, the potential for life-threatening hemorrhagic cystitis is enhanced when cyclophosphamide treatment is combined with pelvic irradiation (ref. cit.).

Another complication of acrolein urotoxicity is development of vesical transitional-cell carcinoma.<sup>1,3,6</sup> Fairchild et al.<sup>15</sup> report a ninefold increase in risk of secondary urothelial malignancy as compared with the general population. All case reports of cyclophosphamide-associated bladder cancer, often occurring up to 10 years after cessation of therapy, involve patients on long-term oral treatment. The incidence of bladder cancer induced by pelvic irradiation is unknown. The occurrence of transitional-cell atypia, a premalignant change,<sup>16,17</sup> in biopsies of irradiation cystitis indicates a potential risk for oncogenesis.

Other adverse reactions to cyclophosphamide include leukopenia, anemia, thrombocytopenia, ano-

rexia, nausea, vomiting, hemorrhagic colitis, oral ulcerations, jaundice, gonadal suppression, alopecia, dermatitis, and interstitial pulmonary fibrosis.<sup>18</sup>

### Conclusion

Quality medical care requires that patients be fully informed of known serious side effects of potentially toxic treatment programs. Physicians who prescribe cyclophosphamide and therapeutic radiologists should fully describe potential complications to their patients and receive informed consent before proceeding with therapy. Alternative non-urotoxic drugs should be used for those patients with prior or concurrent pelvic irradiation. MM

*William Price is a clinical professor of urology at the University of Minnesota and a practicing urologist on the staff of Abbott Northwestern Hospital in Minneapolis.*

*Loren Keldahl is a practicing urologist on the Abbott Northwestern Hospital staff.*

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# Looking Back with Pride . . . Looking Ahead with Determination

*Robert D. Christensen, M.D.*

It has been my privilege to represent the Minnesota Medical Association as your president this past year. A few thoughts come to mind that I would like to share with you.

1. I have been impressed by Minnesota physicians' tremendous dedication to caring for patients as people. Physicians in this state truly are their patients' advocates!

2. I am proud of the professionalism demonstrated by physicians in providing high-quality medical care to the people of Minnesota.

3. I believe we must preserve this professionalism by continuing to refer to ourselves as physicians and not providers and to the people we serve as patients rather than consumers. There is a fundamental difference! It has to do with balancing professional interests with business interests, individuals with organizations, and patient advocacy with legislative and socioeconomic issues. As we necessarily become more cost-efficient in our health care delivery system, this priority becomes even more essential to preserving and protecting the patient-physician relationship.

Reed and Evans in their article, "The Deprofessionalization of Medicine: Causes, Effects, and Responses" (*JAMA* 258:3279, December 1987), wrote that "professionalism still provides the best model of health care delivery in terms of benefits to patients and society." They argue that if medicine is to survive as a profession, it must continue to be distinguished by the following characteristics:

- The profession is in possession of a circumscribed and socially valuable body of knowledge.
- The members of the profession determine the profession's standards of knowledge and expertise.



"I am proud of the professionalism demonstrated by physicians in providing high-quality medical care to the people of Minnesota."

- The profession attracts high-quality students who undergo an extensive socialization process as they are absorbed into the profession.
- The profession is given authority to license practitioners by the state, with licensing and admission boards made up largely of members of the profession.
- There is an ostensible sense of community and mutuality of interests among members of a profession.
- Social policy and legislation that relate to the profession are heavily influenced by members of the profession through such mechanisms as lobbying and expert testimony.
- The profession has a code of ethics that governs practice, the tenets of which are more stringent than legal controls.
- A service orientation supersedes the proprietary interests of the pro-

fessionals.

- Professions are terminal occupations, i.e., they are the practitioners' singular and lifelong occupational choice.

- A profession is largely free of lay control, with its practitioners exercising a high degree of occupational autonomy.

I fervently hope each of us will be committed to do our part to preserve professionalism in medicine.

4. I believe we must continue our efforts to provide access to affordable health insurance for everybody. These efforts must include such elements as a) an essential medical care benefits package (we must define essential medical care); b) consumer cost sharing (copays and deductibles); c) payer incentives that encourage patients to "buy right" and reward physicians who provide efficient, quality care by sending them more patients; d) practice parameters and patient functional outcomes; e) public education about the importance of preventive health care and the need for self-responsibility (we physicians need to continue to be the leaders in promoting healthy lifestyles).

Allocating and conserving health care resources while providing quality care to everyone requires that patients, physicians, hospitals, insurers, and payers work together in a trusting relationship using innovation and creativity to get the job done in concert with our vision for access to affordable health insurance for all.

5. Drug addiction is America's No. 1 public health problem. We are initiating an anti-drug education program begun jointly by Alan Nelson, M.D., American Medical Association president, and L. Stanley Chauvin, Jr., president of the American Bar Association. Teams of local



physicians and attorney leaders will present the program to schools in our communities. Such cooperation allows us to help solve this public health threat by jointly leading discussions in our communities, and it offers us a chance to build a better relationship with the legal profession.

6. We need to consider whether or not to increase our funding of the Minnesota Clinical Comparison and Assessment Project. I think it is essential that we not lose control of the development (and maintenance) of clinical practice parameters and patient functional outcomes information. To maintain that control, we may have to provide the project with several hundred thousand dollars.

The importance of this issue to physicians and our patients, in my opinion, is of the same magnitude as the professional liability crisis of 10 to 15 years ago, which energized the 1979 MMA House of Delegates to authorize up to \$500,000 (a lesser amount was allocated and repaid in full) to develop a physician-owned professional liability insurance company (the Midwest Medical Insurance Company, formerly the Minnesota Medical Insurance Exchange). MMIC's immeasurable value is obvious today to all of us.

Clearly, the time is right for us to examine more closely our support of the MCCAP project.

7. I believe we must improve our communication with our various publics.

- **Internal Communication:** In order to help us communicate with our members more effectively, I again (see Annual Meeting Report 2, Chairman, MMA Board of Trustees, May 7, 1987) strongly encourage the Minnesota Medical Association to restructure the county medical societies (exclusive of the Hennepin, Ramsey, and Zumbro Valley county medical societies) according to existing hospital medical staffs in each county medical society area. Each hospital medical staff would have appropriate representation at the county medical society level and would use available hospital medical staff secretarial support to help address local issues and promote candidates from the hospital medical staff

level to the county medical society level and on to the state medical association level. MMA staff would be assigned to each county medical society to act as liaisons, coordinating and communicating ideas and activities to and from the MMA central office. Under this arrangement, MMA activities would have greater impact throughout the state and would increase input (whether it be in the form of resolutions and/or candidates for office) by MMA members, especially in greater Minnesota. Also, I think physician attendance and participation at the hospital medical staff level is better than it is at the county medical society level, in part because of the greater availability of hospital medical staff office support. Furthermore, I think some hospital medical staffs are frustrated because they don't know how to deal effectively with many local legislative and socioeconomic issues facing them; for example, how to communicate with their local legislative representatives. The beauty of this approach is that the federation of organized medicine can greatly increase its effectiveness at very little added cost.

- **External Communication:** We must develop a program similar to Ramsey County Medical Society's "mini-internship" program, whereby state legislators would spend a day with one of their local physicians. Legislators I have met throughout the state this year have made it clear that they do not understand what it means to be a physician. They truly believe we don't work very hard, that we make too much money, and that we are interested primarily in our pocketbooks and not our patients. We need to give them a chance to walk in our shoes so they understand better what we do and who we really are. The MMA must coordinate this effort and may want to consider using the same program to communicate with other key people, especially those in business and labor groups.

I want to take this time to thank the tremendously hardworking and dedicated MMA staff, who have made my presidential year a real joy. It has been my privilege to work with each and every one of them. I espe-

cially want to commend Lorrie Holmgren and Meredith McNab, whose word-smithing expertise I could not have done without.

I also want to thank Steve Carter who has given so much to the MMA as our chief executive officer these past four years. I wish him well and Godspeed as he moves on to the national scene as national director for state and subspecialty relations for the American Academy of Ophthalmology in San Francisco. It's nice to know we will have another friend working with us at the national specialty organization level.

In closing, I want to thank the MMA Board of Trustees and, in particular, our chairman, Dr. Paul Sanders, whom I have enjoyed working with this year. His jokes may not be the best, but his vision for the Minnesota Medical Association is right on target! MM

## Fatal Cystitis References

*From page 41*

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*Because safety  
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nizatidine

## **Minimal potential for drug interactions**

*Unlike cimetidine and ranitidine,<sup>1</sup>  
Axid does not inhibit the cytochrome  
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- *Most patients experience  
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- *Heals duodenal ulcer  
rapidly and effectively<sup>4,5</sup>*
- *Dosage for adults with active  
duodenal ulcer is 300 mg once nightly  
(150 mg b.i.d. is also available)*

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### **AXID<sup>®</sup>** nizatidine capsules

**Brief Summary.** Consult the package literature for complete information.

**Indications and Usage:** 1. *Active duodenal ulcer*—for up to eight weeks of treatment. Most patients heal within four weeks.

2. *Maintenance therapy*—for healed duodenal ulcer patients at a reduced dosage of 150 mg h.s. The consequences of therapy with Axid for longer than one year are not known.

**Contraindication:** Known hypersensitivity to the drug. Use with caution in patients with hypersensitivity to other H<sub>2</sub>-receptor antagonists.

**Precautions:** *General*—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

**Laboratory Tests**—False-positive tests for urobilinogen with Multistix<sup>®</sup> may occur during therapy.

**Drug Interactions**—No interactions have been observed with theophylline, chlorazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

**Carcinogenesis, Mutagenesis, Impairment of Fertility**—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

Axid<sup>®</sup> (nizatidine, Lilly)

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

**Pregnancy—Teratogenic Effects—Pregnancy Category C**—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers**—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

**Pediatric Use**—Safety and effectiveness in children have not been established.

**Use in Elderly Patients**—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

**Adverse Reactions:** Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

**Hepatic**—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

**Cardiovascular**—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

**CNS**—Rare cases of reversible mental confusion have been reported.

**Endocrine**—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

**Hematologic**—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

**Integumental**—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

**Hypersensitivity**—As with other H<sub>2</sub>-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H<sub>2</sub>-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

**Other**—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

**Overdosage:** Overdoses of Axid have been reported rarely. If overdose occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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Additional information available to the profession on request.



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## People and Places Making Medical News

### People

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#### Teens' Advocate Resigns

Elizabeth K. Jerome, M.D., retired April 1 as medical director of the Teen Age Medical Service (TAMS) at Minneapolis Children's Medical Center.

Jerome was a major force behind TAMS, one of the nation's first clinics specializing in teenagers. TAMS opened in 1968, a time when many teen-agers were living on their own in inner-city Minneapolis. Jerome recognized that teens would not use a health care service that they viewed as part of the establishment, and the clinic she helped to open in an old Victorian house was the first program of the children's hospital in Minneapolis, which did not open its main facility until 1973.

Jerome has been an assistant clinical professor in pediatrics at the University of Minnesota since 1976 and maintained a private practice in pediatrics from 1950 to 1973.

#### 'U' Lab Med/Pathology Head

Leo T. Furcht, M.D., Allen-Pardee Professor of Cancer Biology at the University of Minnesota, has been named the head of the university's laboratory medicine and pathology department. Furcht, who replaced the retired Ellis Benson, M.D., assumed his new duties March 1. A New York native, Furcht also is director of the university's biomedical engineering center and the laboratory medicine and pathology medical fellowship training program.

#### United Surgery, Oncology Post

Gordon Addington, M.D., vice chief of staff at United Hospital in St. Paul, has been appointed

medical director for family practice surgical education, medical adviser for oncology continuing medical education, and surgical physician outreach coordinator.

Addington will help develop the surgical portion of the family practice residency program United plans to establish. His responsibilities will also include creating surgical outreach programs for non-metro area physicians and developing and administering continuing education programs for oncologists.

Addington earned his M.D. from the University of Minnesota in 1958.

#### St. Paul Children's Chief of Staff

Michael Nation, M.D., of St. Paul has been selected as chief of the medical staff for 1990 at Children's Hospital of St. Paul. Nation received his medical degree from Brown University in Providence, Rhode Island, and completed his pediatric residency at the University of Minnesota.

Other newly appointed medical staff officers include Paul T. Kubie, M.D., chief of staff elect, and Barbara Malone, M.D., secretary/treasurer.

#### Service to Humanity Award

The Sertoma Club of New Ulm, Minnesota, presented its Service to Mankind Award to Ted R. Fritsche, M.D., and his wife, Lois, in April. Fritsche, a retired ophthalmologist, served as mayor of New Ulm in the 1950s and has been involved in many local and state organizations, including a term as MMA vice president.

#### Oncology Award

Patricia A. Norby, an oncology nurse specialist at Metropolitan-Mount Sinai Medical Center in Minneapolis, has been selected as

one of 20 nurses nationwide to receive the 1990 American Cancer Society's Lane W. Adams award. This award is given to nurses who demonstrate excellence in caring for people with cancer. The award recognizes the importance of direct cancer care activities and the critical role that nurses play in providing that care.

Norby, who has worked in oncology critical care for 16 years, is one of the co-founders of the American Cancer Society's "I Can Cope" cancer patient education program.

#### National Academy of Engineers

Earl Bakken has been inducted into the national Academy of Engineering. Bakken is founder and a director of the Fridley, Minnesota-based Medtronic, Inc.

#### Riverside Board

John M. Palmer has been named chairperson of the Riverside Medical Center Board of Directors in Minneapolis. He is a member of the Minneapolis law firm Fredrikson & Byron. Other newly appointed officers are: vice chair—Royce N. Sanner, senior vice president, general counsel, and secretary, the NWNL Companies, Inc.; secretary—Verne C. Johnson, president and chief executive officer, Altcare Corporation; and treasurer—Sr. Anne Elise Tschida, treasurer for the Sisters of St. Joseph.

#### St. Paul Public Health Chief

After a nationwide search, St. Paul Mayor Jim Scheibel in March named Katherine Cairns as the new St. Paul Public Health Division manager. Cairns, 35, was the health administrator for the St.

Paul Public Health Division, which provides health services at various clinics and is responsible for the city's housing and restaurant inspections.

### **M-MSMC Vice President**

Officials at Metropolitan-Mount Sinai Medical Center of Minneapolis in March appointed Meg Cleary to the newly created position of vice president, physician services. Cleary is a Minneapolis native and was the director of clinical operations and development at Fairview Hospital in Minneapolis.

## **P l a c e s**

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### **Burned Out**

Responding to high cost and neighborhood concerns, officials at United Hospital in St. Paul announced that the hospital will shut down its incinerator July 1. Hospital officials announced the decision after discovering that United would have to pay approximately \$36,000 for pollution tests required by the Minnesota Pollution Control Agency (MPCA) and, if stricter incineration guidelines under consideration by the MPCA are adopted, might have had to pay as much as \$1 million more for additional pollution control equipment. St. Paulites living near the incinerator also voiced concerns over possible health effects.

United will ship some of its waste to an incinerator in Fargo, North Dakota, send some to area landfills, and attempt to reduce the amount of waste it generates. Previously, the hospital had treated any waste that came in contact with a patient as infectious, but now its staff will be retrained to identify infectious waste using the state's new guidelines, which are less stringent than United's former policy. Less waste would then require incineration.

### **'U' Hospital Expansion**

The University of Minnesota Hospital Board of Governors in March approved a plan to raze the southeast wing of the Mayo building and build a nine-story, \$62 million addition in its place. The new building would house pharmacy and patient-care areas for psychiatry, obstetrics, rehabilitation, and urology, which are now housed in the outmoded Mayo building. The board also said it would review the proposal to ensure available funding before the Mayo wing is demolished.

The proposed building would complete the University Hospital and Clinic's update started in the early 1980s.

### **Mayo Family Health Book**

The Mayo Clinic will release the *Mayo Clinic Family Health Book* this October in hopes of bolstering its share of the mass audience for health publications. The 1,300-page book of 1,000 diseases, disorders, syndromes, and symptoms is more complete and comprehensive than other family health guides, according to Mayo officials. Mayo gastroenterologist David Larson, M.D., is the editor-in-chief.

### **Testing Doctors for Drugs**

Baltimore's Johns Hopkins Hospital in July will be the first medical center in the country to test its physicians for drug and alcohol use. Johns Hopkins administrators said they hope to broaden the random testing to include all hospital employees, but they plan to test physicians first because of their high visibility and their prominent position on the health care team.

## **I n n o v a t i o n s**

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### **Experimental Anti-rejection Drug**

Mayo Clinic liver transplant specialists in March began evaluation of a new anti-rejection drug

that will be administered to selected patients whose liver rejection has failed to respond to standard therapy. The drug, FK-506, has been found to be more powerful and more effective than currently used anti-rejection drugs.

"Tests conducted last year at the University of Pittsburgh found that FK-506 was up to 50 times more powerful than cyclosporine, an anti-rejection drug introduced in 1979. The drug was successful in preventing rejection of transplanted organs in the majority of cases," said E. Rolland Dickson, M.D., Mayo Clinic consultant in hepatology and liver transplantation.

Initially, the drug will be administered only to patients in whom standard anti-rejection drugs have been ineffective—about 25 percent of all patients. By mid-year, however, specialists expect to administer FK-506 instead of cyclosporine in the first phase of standard anti-rejection therapy during a controlled, randomized trial.

### **Roto-rooter for Blood Vessels?**

Minneapolis Heart Institute cardiologist Michael Mooney, M.D., used a rotating-blade catheter to remove cholesterol blockage from vessels supplying blood to the heart of a 40-year-old Wisconsin man. The procedure, called atherectomy, was performed in February at Abbott Northwestern Hospital and was reportedly the first performed in the Twin Cities. The patient was discharged the following day, and doctors say his prognosis is good.

The atherectomy was performed to clear a 95 percent blockage in the left anterior descending blood vessel. The more commonly performed balloon angioplasty opens cholesterol blockages by stretching blood vessels. Atherectomy results in less scar tissue and may be more effective in preventing recurrent



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## YOHIMBINE HCl

**Description:** Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

**Action:** Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

**Indications:** Yocon<sup>®</sup> is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

**Contraindications:** Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

**Warning:** Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

**Adverse Reactions:** Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.<sup>1,2</sup> Also dizziness, headache, skin flushing reported when used orally.<sup>1,3</sup>

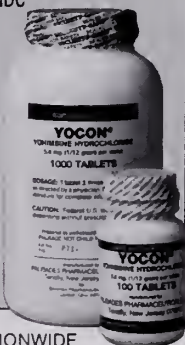
**Dosage and Administration:** Experimental dosage reported in treatment of erectile impotence.<sup>1,3,4</sup> 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.<sup>3</sup>

**How Supplied:** Oral tablets of Yocon<sup>®</sup> 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

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blockages.

"Atherectomies are not necessarily riskier than angioplasties, but in some ways they are more difficult to perform," Mooney said. "The catheter used in an atherectomy is stiffer than an angioplasty catheter and is usually used to remove blockage in the proximal or beginning portion of the major blood vessels feeding the heart.

"At least one-third of the patients who undergo angioplasty could be candidates for atherectomy," he said.

The procedure is considered experimental and is under FDA investigation.

## Socioeconomics

### Malpractice Rate Decrease, Refund

St. Paul Fire & Marine Insurance Co., a subsidiary of the St. Paul Companies, announced in March that it will refund \$1.5 million in medical malpractice insurance premiums to 1,400 Minnesota physicians. The company, which will also reduce rates by 15 percent on July 1, announced its decision after Minnesota Commerce Commissioner Thomas Borman issued an action to have the St. Paul Companies lower its rates. The St. Paul Companies rates had, until 1989, been rising, despite the fact that malpractice claims declined from 17 per 100 physicians in 1984 to 12.3 per 100 in 1989.

After the July rate cut, a neurosurgeon can expect to pay \$46,000 a year for malpractice insurance, compared with \$74,500 in 1988. A family practitioner will pay \$5,100, compared with \$7,900 two years ago.

### Free Hospital Care

Minnesota's 163 licensed hospitals provided more than \$65 million in free health care services during fiscal 1987, according to a March report by the Minnesota Department of Health.

That compares with \$56 million in free care provided by

165 hospitals during fiscal 1985—the first year that hospitals were required to provide that information to the health department. The \$65 million in free care provided during 1987 included both "charity care" and "bad debt"—hospital charges that patients were either unable or unwilling to pay.

Large hospitals, publicly operated hospitals, and hospitals in urban areas provided more free care than other hospitals, as a percentage of their total charges to patients. Hospitals in the Twin Cities area accounted for 76 percent of all charity care and bad debt in the state. The 10 hospitals with the largest amounts of charity care and bad debt were all located in the Twin Cities or Rochester and accounted for 61 percent of all free care statewide. Hennepin County Medical Center accounted for 19 percent of all charity care and bad debt in Minnesota.

### Uninsured Mortality

People without health insurance have lower life expectancies, and their babies are much more likely to die before the mother leaves the hospital, according to the Health Care Access Commission's March interim report to the Minnesota Legislature's Health and Human Services Committee.

The commission, established by the 1989 Legislature to determine whether or not Minnesota and its approximately 400,000 uninsured citizens need a universal health care system, said that 8.4 percent of Twin Cities and 10 to 13 percent of rural Minnesotans lack health insurance.

Those lacking health insurance are less likely to see a physician every year or to receive prenatal care in the first trimester of pregnancy. They are also just half as likely to see a doctor within 30 days for serious symptoms, the commission said.

In a related report also released in March, the Council of Hospital Corporations determined that the infant mortality rate for uninsured Twin Cities residents was alarmingly higher than the rate for the insured. The council (a trade group of Twin Cities-area hospitals) studied computer data on 110,808 hospital births from 1986 through June 1989 and reported that the infant mortality rate for uninsured patients was 31.4 deaths per 1,000 births, compared with rates of 6.3 per 1,000 for the commercially insured, 5.5 per 1,000 for HMO members, and 10.6 per 1,000 for Medical Assistance patients.

### Record HMO Profits

After raising premiums an average of almost 20 percent, Minnesota's HMOs collectively posted a net profit of more than \$29 million in 1989. HMO officials said the increase was needed to build reserve funds to make up for heavy losses in the mid-1980s. This year's average premium increase is again expected to approach 20 percent.

### Share, Ramsey Clinic Part Ways

Unable to reach an agreement over reimbursement with the 160-physician Ramsey Clinic in St. Paul, Share Health Plan told its members that, effective April 1, they could not be treated by Ramsey Clinic physicians unless they changed health plans.

The 10-year Share-Ramsey affiliation ended because Share said Ramsey physicians allowed costs to escalate by referring too many patients to specialists. Ramsey physicians contended that the clinic should be reimbursed differently than other Share clinics because it has a higher proportion of frail elderly patients.

Share pays Ramsey on a capitated basis, and its payments were about the same as those for comparable patients enrolled in other Share-affiliated clinics, Share officials said.

According to Paul Sommers,



executive vice president of the clinic, Ramsey physicians were "getting less than 50 cents on every dollar of expenses from [Share] in 1989."

### Physicians Health Share Plan?

Share Health Plan, one of Minnesota's lowest-cost HMOs, and Physicians Health Plan, one of the state's highest-cost, are talking about a possible merger. Officials of both HMOs said the issue should be settled one way or the other within the next six months to a year. Both HMOs are managed by the Minnetonka, Minnesota-based United HealthCare Corp.

### Rate Cut for Medigap Enrollees

After Minnesota Commerce Commissioner Tom Borman issued consent agreements, seven insurance companies agreed to decrease their premiums for Medigap insurance, Borman announced in March. Borman had asked for the premium rate cut because the companies' payouts had been lower than required by Minnesota law governing Medigap insurance, which supplements Medicare.

The Commerce Department estimates that the lower premiums will save 6,500 senior citizens about \$1.5 million. The seven companies are Mutual of Omaha Insurance Co., Mutual Protective Insurance Co., Medico Life Insurance Co.—all of Omaha, Nebraska—United American Insurance Co. of Dallas, American Republic Insurance Co. of Des Moines, Iowa, Union Fidelity Life Insurance Co. of Trevese, Pennsylvania, and Guarantee Trust Life Insurance Co. of Glenview, Illinois.

### Unhealthy Minnesotans?

Minnesotans are too fat, drink too much, and tend toward a couch-potato lifestyle, according to a West Virginia Division of Health

report released in March and compiled from U.S. Centers for Disease Control data. Minnesota ranked 22nd out of 36 states and the District of Columbia, which were studied using such factors as obesity, alcohol consumption, smoking, drinking and driving, seat belt use, sedentary lifestyle, and high blood pressure. By comparison, a 1989 study by Northwestern National Life Insurance Co. that took into account such factors as life expectancy, infant mortality, access to health care, time away from work, and lifestyle ranked Minnesota fourth out of 50 states.

The West Virginia study ranked Utah, Maryland, Hawaii, the District of Columbia, and California as the five most healthy and North Dakota, Alabama, South Dakota, Kentucky, and West Virginia as the least healthy (West Virginia was ranked last).

The health index included data from 1984 to 1988. In 1984, 20.7 percent of Minnesotans were at least 20 percent above their ideal weight; in 1988 25.2 percent were that much overweight. Over the four years studied, Minnesotans' drinking habits improved slightly—heavy drinking (two or more drinks a day) dropped from 7.7 percent to 6.7 percent, binge drinking (five or more drinks at one sitting anytime during the previous five months) dropped from 25.3 percent to 22.6 percent, and the number of people who drank and drove dropped from 6.9 percent to 5.9 percent. Even so, Minnesota ranked eighth highest in alcohol consumption. Minnesotans made good strides in smoking, dropping from 26.5 percent of the population in 1984 to 22.5 percent in 1988, and in seat belt use, up from 29 percent to 83.3 percent.

### American Indian Teen Health

Native American teen-agers have dramatically higher rates of mental health problems, suicide, and substance abuse than do white teens, but they have only one-tenth the number of government mental-

health workers to turn to, according to a report by the congressional Office of Technology Assessment. And Plains Indians, which include most of Minnesota's Native American population, suffer even greater psychologically, according to the report, released March 28.

The report, prepared for the Senate's Select Committee on Indian Affairs, highlighted several problems among American Indians, problems that are especially acute among Plains tribe teen-agers. Indian teen-agers are four times more likely to commit suicide than youth of other races. In Minnesota, Wisconsin, and Michigan, the percentage of Indian teens hospitalized after suicide attempts jumped from 3.7 percent in 1980 to 15.5 percent in 1988. Among Plains Indians, about 13 percent of adolescent boys and 23 percent of adolescent girls have tried to kill themselves. And, according to the report, 22 percent of Indian teens have parents with drinking problems, as compared with 14 percent of teens of other races.

Despite the high incidence of psychological problems among American Indians and particularly in the Plains tribes, the Indian Health Service has only 17 mental-health professionals to serve 397,000 Indians under 18. Nine of these professionals are in Montana and Wyoming. Minnesota has none, and two mental-health professionals serve tribes in North Dakota, South Dakota, Nebraska, and Iowa, the report said.

### Rural Health Care Project

The National Rural Health Association has begun work on a one-year project that will help states develop alternative health care delivery models in rural areas. The project, funded by a \$137,122 grant from the St. Paul-based Northwest Area Foundation, will study hospitals and other health facilities in rural areas of the

northwestern United States to determine what other methods of delivering health care may be appropriate for these areas.

### Malpractice Data Bank

The U.S. Department of Health and Human Services did not meet its own April deadline for creating a national data bank of malpractice and practitioner behavior. The data bank, ordered by a 1986 federal law and originally scheduled for operation in 1987, will be in use by the end of September, according to federal officials.

### Med School Applications Up

After a decade of declining enrollment, medical school applications nationwide this year rose 8 percent over 1989 applications, up from 26,915 (a slight increase over 1988) to about 29,000 applicants. The number of white males applying rose 3.8 percent; the number of Asian or Pacific Islander applicants rose 17.8 percent; the number of blacks, Hispanics, and Native Americans rose 3.8; and the number of women applying rose 12.1 percent. About 40 percent of medical school applicants are women.

## Medical Research

### Misleading Cholesterol Analyzers

Inadequately trained operators and inaccurately set instruments are the main culprits behind misleading cholesterol readings taken by the increasingly popular portable finger-prick screening analyzers, the March 2 *Journal of the American Medical Association* reported. In a test of four screening organizations, only one produced results entirely within acceptable limits, according to author Michelle J. Naughton, Ph.D., of the Division of Epidemiology, School of Public Health, University of Minnesota, and colleagues.

Three of the four organizations studied were private companies that conducted screenings as part of their health care businesses. The fourth was a state-run agency in Minnesota. Those who had their cholesterol analyzed ranged in age from 18 through 70 years.

Blood samples were drawn hypodermically from the study participants and later were analyzed by more sophisticated and sensitive laboratory equipment. The results from the portable machines then were compared with the values determined by the lab analysis. Problems arose both with false-positive and false-negative results. Even at the site considered the most accurate of the four tested, the authors found 5.6 percent of the participants were told they had high-risk cholesterol levels when, in fact, they didn't. At another site, more than 14 percent of those tested were incorrectly told their cholesterol levels were lower than they actually were.

### Where to Inject Insulin

Diabetics who restrict insulin injections to the abdomen may have smaller and fewer blood sugar fluctuations than those who vary the injection site, a finding that could allow for more precise insulin dose adjustments, according to a study by John P. Bantle, M.D., and colleagues at the University of Minnesota.

The study, published in the March 16 *Journal of the American Medical Association* showed that blood glucose fluctuations were significantly smaller when the study's 12 adult subjects were told to inject their insulin into their abdomens for a three-day period than when these same subjects were asked to rotate their injections among their arms, abdomens, and thighs for three days.

During these three-day periods, all of the subjects were hospitalized in the university's National Institutes of Health Clinical Research Center. Insulin was administered

according to assigned injection protocols, meals and exercise amounts were regulated, and blood glucose and insulin levels were sampled nine times a day. When the insulin injections were given in the abdomen, blood glucose levels again varied less in all 12 subjects.

### Pancreas Donor Risk

Those who donate half of their pancreases to a diabetic relative tend to have lower insulin levels and a decreased glucose tolerance one year posttransplant, according to a recent study by David M. Kendall, M.D., and colleagues at the University of Minnesota Hospital. The study of 28 donors—none of whom had any discernible problems—was published in the March 29 *New England Journal of Medicine*. Eight of the donors were also restudied one to six years after transplant, and they showed no further deterioration of insulin or glucose tolerance. Although transplanting half a pancreas into a diabetic patient almost always cures the patient of diabetes, the authors said more research is needed to determine if the donor is susceptible to diabetes later in life.

### Chicken Pox Relief

Acyclovir, widely used to alleviate genital herpes symptoms, has been shown effective for treating children's chicken pox in a study by pediatrician Henry Balfour, M.D., and colleagues at the University of Minnesota. In the study, published in the April *Journal of Pediatrics*, 50 children received a syrup containing acyclovir, and 52 children received a placebo. The children treated with acyclovir developed an average of 336 skin lesions and started healing within a day of treatment. Those in the control group developed an average of more than 500 lesions






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and started healing within two days. The study also indicated that acyclovir didn't interfere with developing immunity to the chicken pox virus.

Balfour said some physicians may delay using the drug to treat chicken pox until results from a more extensive, 10-city study are released later this year. Until that time, physicians may limit use of the drug to older children, who typically develop the most severe chicken pox cases, according to Balfour.

### Sodium Fluoride Not a Cure for Osteoporosis

The use of sodium fluoride is not an effective treatment for osteoporosis, according to a report in the March 22 *New England Journal of Medicine*.

Endocrinologist B. Lawrence Riggs, M.D., and colleagues at the Mayo Clinic in Rochester, Minnesota, found that sodium fluoride treatment did not decrease the occurrence of vertebral fractures in women with osteoporosis and resulted in an increase in other fractures. Mayo data also demonstrated a high incidence of side effects associated with sodium fluoride treatment. Although experimental, sodium fluoride is one of the most widely used drugs for osteoporosis.

"We have learned that sodium fluoride does stimulate bone formation and increase bone mass in the central skeleton," Riggs said. "However, given the high incidence of significant side effects and its failure to decrease fractures, fluoride therapy should not be used for treatment of osteoporosis."

Mayo's four-year clinical trial involved more than 200 postmenopausal women with osteoporosis treated with sodium fluoride and a calcium supplement.

### Preventive Medicine Works

When exposed to nutritional advice, smoking cessation classes, and better hypertension treatment, men live longer than those not receiving the same special medical attention, a study in the April 4 *Journal of the American Medical Association* reported.

In the study, which spanned more than a decade, mortality rates were lower for men who received special medical intervention than those who had access to their usual health care. For example:

- The death rate for acute myocardial infarction in men receiving special intervention was 24 percent lower than for those men receiving their usual care.
- Overall, mortality rates were 7.7 percent lower for special intervention participants compared with men receiving usual care.
- Coronary heart disease mortality rates dropped 10.6 percent for those men exposed to special intervention compared with those who weren't.

The latest report, completed by the Multiple Risk Factor Intervention Trial Research Group (data were analyzed by the Biostatistics Division, School of Public Health, University of Minnesota), was designed to test the effect of a multi-faceted intervention program to reduce coronary heart disease mortality among men who smoke and have above-normal blood pressure and cholesterol levels. Clinical follow-up ended in February 1982. More than 12,800 men aged 35 to 57 years participated in the study, which began in December 1973.

### Lower Heart Disease Risk

People of all levels of income and education have lowered their risk of heart disease, but wealthier and better-educated people still tend to be healthier than those with lower income and education levels, epidemiologist Russell Luepker,

M.D., and colleagues at the University of Minnesota found. The researchers compared heart disease risk factors with education and income levels among 3,816 randomly selected adult Twin Cities residents from 1980 to 1982 and another 4,641 from 1985 to 1987. While all socioeconomic groups lowered their risk of heart disease, the poorer and less educated still face the greatest risk of developing heart disease. For example, the percentage of smokers dropped from 44 to 41 among men without a high school diploma, from 40 to 33 percent among men with some college education, and from 25 to 21 percent among male college graduates.

The findings were presented in March at the American Heart Association's annual conference on heart disease epidemiology in San Diego. MM

### REWARDING PRACTICE OPPORTUNITIES

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## CALENDAR OF MEDICAL EVENTS

**May 10, 1990**

**RESEARCH AT HCMC**  
"Fourth Annual Poster Session"  
William Keane, MD  
Hennepin County Medical Center  
Minneapolis

**May 11, 1990**

**MUSCULOSKELETAL SEPSIS**  
"Outpatient Diagnosis and Management  
of Musculoskeletal Infections"  
Dean Tsukayama, MD, Chairman  
Hennepin County Medical Center  
Minneapolis

**May 17-19, 1990**

**ACUPUNCTURE FOR PAIN CONROL**  
A Practical Course for Physicians  
Miles Belgrade MD, Chairman  
Hennepin County Medical Center  
Minneapolis

**May 21-24, 1990**

**Society for Academic  
Emergency Medicine (SAEM)**  
ANNUAL RESEARCH AND EDUCATION MEETING  
Louis Ling, MD, Chairman  
Minneapolis Hyatt Hotel  
Minneapolis

**June 1, 1990**

**THIRD ANNUAL  
TWIN CITIES TUTORIALS**  
M. Thomas Stillman, MD, Chairman  
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**June 19, 1990**

**THIRTY-FIRST ANNUAL  
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Greg Schultz, MD, Chairman  
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## A Calendar of Continuing Medical Education Courses

*Provided through the MMA Medical Education Subcommittee on CME Resources* For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; (612) 378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

### MAY 1990

May 2-4 **Annual Spring Refresher** Minnesota Academy of Family Physicians; Hyatt Regency Hotel, Minneapolis, MN. CONTACT: Virginia Barzan, 2221 University Avenue SE, Suite 426, Minneapolis, MN 55414; 612/331-2506.

May 9-11 **Marketing and Selling Your Hospital Laboratory** Mayo Medical Laboratories; Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

May 11-13 **Bowie Symposium on Von Willebrand's Disease** Mayo Clinic; Mayo Clinic, Rochester, MN. CONTACT: William Nichols, M.D., Hematology Research, Mayo Clinic, Rochester, MN 55905; 507/284-5978.

May 15-28 **Western Mediterranean Air/Sea Cruise** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116.

May 16-18 **Current Concepts in Radiation Therapy** University of Minnesota CME; Mayo Memorial Auditorium, University of Minnesota, Minneapolis, MN. CONTACT: Continuing Medical Education, University of Minnesota, Box 202, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

May 18 **Lyme Disease—Clinical Overview and Update** Arthritis Center of Park Nicollet Medical Foundation; Radisson South, Bloomington, MN. CONTACT: Ruth Taylor, 5000 West 39th Street, St. Louis Park, MN 55416; 612/924-2755.

May 18-19 **Laser Angioplasty** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office 14202, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

### JUNE 1990

June 1-2 **Cole Memorial Pediatric Orthopaedic Seminar** Shriners Hospital; Shriners Hospital, Minneapolis, MN. CONTACT: Lyle Johnson, M.D., Chief of Staff, Shriners

Hospital, 2025 East River Road, Minneapolis, MN 55414; 612/339-6711.

June 1-2 **Morphology of Body Fluids** Mayo Medical Laboratories, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, MN 55905; 1-800/562-1787.

June 4-8 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

June 11-13 **Partners in Managing Type II Diabetes** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

June 20-22 **Progress in Cancer Surgery** Department of Surgery, University of Minnesota Medical School; Willey Hall, Minneapolis, MN. CONTACT: CME Office, University of Minnesota, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

June 20-22 **54th Annual Course Progress in Cancer Surgery** Department of Surgery, University of Minnesota, Minneapolis, MN. CONTACT: CME Office, University of Minnesota, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

June 21 **Lasers in General Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, 14202 Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

June 21-24 **Current Topics in Laboratory and Clinical Genetics** Mayo Medical Laboratories, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

June 22-23 **Laser Laparoscopic Cholecystectomy** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, 14202 Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

June 25-29 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

June 29-July 12 **Europe** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116.



# Health One Medical Education

**May 9**

**Cardiopulmonary Resuscitation (CPR) Recertification** - Heilicher Auditorium, Metropolitan-Mount Sinai Medical Center/Phillips - 6:00 p.m.

**May 9**

**"Managed Care: Developments and Negotiations"** Practice Management Seminar presented by Roger Upson, Senior Vice President and William Gedge, Director of Contracting and Development, Managed Care Division, Health One - United/Children's Conference Center, Miller Room, 6:00 - 8:00 p.m.

**May 10**

**"Common Orthopaedic Problems"** - presented by Nolan Segal, MD, Sioux Valley Hospital, New Ulm, MN, 12:00 noon.

**May 15, 22, 29**

**Advanced Cardiac Life Support (ACLS)** - Metropolitan-Mount Sinai Medical Center - Co-sponsored with Cardiac Care Centers - Orthopaedic Learning Center - May 15 & 22: 5:00 to 10:00 p.m.; May 29: 4:00 to 10:00 p.m. (Total of 16 hours required)

**May 23**

**"Managed Care: Developments and Negotiations"** Practice Management Seminar presented by Roger Upson, Senior Vice President and William Gedge, Director of Contracting and Development, Managed Care Division, Health One - Metropolitan-Mount Sinai Medical Center, Orthopaedic Learning Center, 6:00 - 8:00 p.m.

**May 31**

**"Coding and Reimbursement for Psychiatrists and Their Office Managers"** - presented by Jeanne Chapdelaine of Partners Medical Management, Ltd., Hilton Metrodome, 6:00 - 8:30 p.m.

For Further information, contact the Medical Education Office, Medical Affairs Division, Health One (612) 574-7895 or call toll-free 1-800-343-DOCS

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JULY 1990

July 1-14 **Leningrad, Moscow, Russian Rivers, and Lakes Cruise** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116.

July 6-22 **Scandinavia, Russia** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116.

July 9-13 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

July 12-13 **Neonatal Resuscitation Program** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Joyce Riedi, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-6923.

July 23-27 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

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- August 24-25 CRUNCH, Minneapolis
- September 14-15 Issues in Pediatric, Adolescent & Adult Reproductive Medicine, St. Paul
- September 28 Parenting, St. Paul
- October 4-5 Pediatric Update, St. Paul
- October 12 Brain, Behavior & Biology: The Interface, St. Paul
- October 25-26 Trauma, St. Paul
- November 2 Environmental Issues in Primary Care, St. Paul
- November 15-17 Clinical Strategies in Primary Care Medicine, St. Paul
- November 30 Mental Illness in the Mentally Retarded, St. Paul
- December 6-8 Annual Cardiopulmonary Medicine Update, St. Paul

#### **Information and Registration**

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**Mankato Clinic, Ltd.** is seeking BE/BC physicians in the following specialties: allergy, dermatology, invasive cardiology, oncology, urology, ophthalmology, and general internal medicine. The Mankato Clinic is a 38-doctor multispecialty group practice in south-central Minnesota with a trade area population of 150,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information, call: Roger Greenwald, Administrator, or Dr. B.C. McGregor, 507/625-1811, or write 501 Holly Lane, Mankato, MN 56001. (R)

**Family Physician** needed to join group of five family physicians in St. Peter, Minnesota, population 9,000, located one hour south of Minneapolis. Contact: Curt Stolee, M.D., or D.A. Nygard, Administrator, St. Peter Clinic, Ltd., 622 Sunrise Drive, St. Peter, MN 56082; 507/931-2110. (R)

**Bemidji, Minnesota:** Excellent opportunities for well-trained physicians. We are seeking board-certified/board-eligible physicians in orthopedic surgery, family practice, ophthalmology, pediatrics, and otolaryngology to join a young 24-physician multispecialty group practice located in northern Minnesota. Competitive salary guarantee plus incentive first year and excellent benefits. An excellent opportunity for a physician to enjoy practice in the center of hunting, fishing, and clear air. Please respond with CV to: C.C. Lowery, Administrator, Bemidji Clinic-MeritCare, 1233 34th Street NW, Bemidji, MN 56601; 218/751-1280. (R)

**Outstanding Opportunity for a BE/BC Family Physician** to join a progressive medical community with eight physicians oriented to family practice. Details will be given by contacting: Dr. Tim Schmitt, Wadena Medical Center; 218/631-1360, or Jim Lawson, Administrator, Tri-County Hospital, Wadena, MN 56482; 218/631-3510. (R)

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(R)

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(R)

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**Wholesale Life Insurance**—No front load and no surrender charge. Example: 35-year-old male, \$500,000. First-year premium—\$2,000. First-year guaranteed cash value—\$1,720. Offered by Ameritas Life Insurance Corp., a hundred-year-old Best's rated A+ (superior) company. For further information contact: Greybull Insurance Services, 1313 5th Street SE, Minneapolis, MN 55414; 612/379-3860.

(\* 10/89-R)

**Radiologist:** A three-physician radiology group is seeking a fourth radiologist with experience and interest in interventional radiology. Dickinson County Hospitals is a progressive, 126-bed, two-hospital system located in Iron Mountain, Michigan's Upper Peninsula. We have a service-area population of over 45,000. Contact and/or send resume to: Drs. Specht/Shampo/Manzano, Radiology Department, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4565.

2-5/90

**Family Practice:** Physicians seeking a BE/BC family practice physician for the Norway, Michigan, service area. The physician would have the option of joining one of the existing practices and/or setting up his/her own practice. Anderson Memorial Hospital is a part of Dickinson County Hospitals and has a service-area population of over 45,000. Contact: Dr. Paul Hayes, Anderson Memorial Hospital, Main Street, Norway, MI 49870; 906/563-9243, or office 906/563-9255.

2-5/90

**Family Physician or Internist:** Busy family practice/industrial practice located on the beautiful North Shore of Lake Superior. Outdoor activities abound: hiking, skiing—xc and downhill—fishing, etc. Two-physician practice is looking for a third physician for a rewarding practicing. VA nursing home is a near future reality. Contact: Jon Ward, Manager, Silver Bay Clinic, Ltd., Silver Bay, MN 55614; 218/226-4431.

(12/89-R)



#### Recruiting for BC/BE Specialists in:

- Radiology
- OB/GYN
- Family Practice
- Emergency Medicine
- Pediatrics
- General Surgery
- Internal Medicine

Olmsted Medical Group offers an excellent opportunity for well-trained physicians to join a 50-physician multispecialty group in an established, progressive practice. In addition to the recently expanded main office in Rochester, Minnesota, the Olmsted Medical Group operates 8 branch offices in S.E. Minnesota. The affiliate hospital recently underwent complete renovation and expansion. Olmsted Medical Group offers a competitive salary and comprehensive benefit package including malpractice insurance, flexible benefits plan, 401K and profit sharing. Send CV to:

Olmsted Medical Group  
ATT: Susan Schuett  
210 Ninth Street S.E.  
Rochester, MN 55904

**Medical Equipment for Sale:** Medical equipment, furniture, and supplies to adequately furnish a one- to two-doctor medical practice. All equipment is in excellent and well-maintained condition. Equipment will furnish four complete exam rooms/emergency room, laboratory, X-ray room, business office, receptionist area, and waiting room. Laboratory includes ZF-5 Coulter Analyzer and binocular microscope. X-ray equipment includes 300 ma X-ray machine and automatic processor. Must see to appreciate. Very reasonably priced. For an appointment to see equipment or for a list of the equipment, please send inquiries to: Minnesota Medicine (837), 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414.

6-6/90

**Mankato:** FP partner to join four board-certified family physicians, ages 31-41, in fast-growing, full-range practice, includes ob. Population 40,000+. Seventy miles to Twin Cities. Four colleges nearby. 90+ physicians on hospital staff. Academic appointment available. Call: Tony Giefer, M.D. 507/387-8231.

(1/90-R)

**Family Practice—Hospital-Sponsored Clinic Opportunity:** Dynamic growth-oriented hospital in beautiful north-central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, in-





Multicare Associates of the Twin Cities, a multi-specialty/multi-location, pre-dominately Fee for Service Group located in the northern suburbs of the Twin Cities is recruiting Board Certified/Board Eligible Physicians in the following departments:

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- OB/GYN
- Internal Medicine
- Occupational Health

Excellent salary and benefit package leading to shareholder status.

Contact: **Jeannine Schlottman**  
**Administrator**  
**7675 Madison ST. N.E.**  
**Minneapolis, MN 55432**  
**612-785-3338**

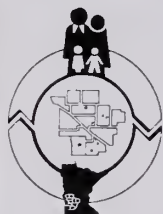
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Send curriculum vitae and references to: **Bunny Iverson, Director of Physician Recruitment**  
**Affiliated Medical Centers, 101 Willmar Avenue SW, Willmar, MN 56201**  
**612-231-6366**

centive bonus, malpractice, disability, signing bonus, and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435; 612/835-5123. (R)

**Urgent Care/Primary Care** physicians for over 90 group positions in metropolitan Phoenix/Tucson, Arizona. Excellent compensation/partnership opportunities. Other quality positions nationwide. Send CV or call: Mitch Young (MM), PO Box 1804, Scottsdale, AZ 85252; 602/990-8080. (\*1/90-R)

**Family Physician** wanted to join three board-certified MDs in well-established, expanding group practice. First-year salary \$85,000. Weekend ER coverage. No buy-in. Enjoy a progressive, rural city within easy reach of St. Cloud and Minneapolis. Contact: Dr. Jim Mohs, Melrose Clinic, 603 West Main Street, Melrose, MN 56352; office: 612/256-4228; home: 612/256-3488. (R)

**Orthopedic Surgeon:** A progressive, 126-bed, two-hospital system is seeking an orthopedic surgeon to join an established practice in the Iron Mountain area of Michigan's Upper Peninsula. Must be BE/BC. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Dr. Roberts will guarantee \$250,000 plus malpractice insurance, office

space, CME, vacation, and relocation expenses. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4500. \*2-6/90

**Exciting Pediatric Opportunity:** Full or part time. East-metro practice offering stimulating combination of primary care, teaching, and consultative services. Excellent salary and benefits. Inquiries to: Ruth at 612/777-8211. (R)

**Family Physicians:** Well-established south suburban Minneapolis family practice group seeks associates part/full time to staff day clinic. Excellent call schedule, salary, and fringe benefits. Also seeking locum tenens to staff PT/FT Urgent Care Centers and/or day clinic. Contact: Administration, Family Physicians, P.A., 612/435-4125, or send inquiries to Suite 100, 14050 Nicollet Avenue South, Burnsville, MN 55337. (\*9/89-R)

**BE/BC Family Physician:** Excellent opportunity to join well-established, progressive 20-physician multispecialty group located in an economically sound community of 20,000 (drawing area of 30,000), 65 miles south of the Twin Cities. Full membership after one year. Competitive salary and fringe benefit package. Contact: Ed Durst, M.D., or Terry Tone, Administrator, 134 Southview, Owatonna, MN 55060; 507/451-1120. (2/90-R)

## Mankato Clinic, Ltd.

501 Holly Lane  
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42-doctor multispecialty group practice in south-central MN with trade area pop. of 150,000. Guaranteed salary 1st year. Incentive thereafter with full range of benefits. Liberal time off.

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- Obstetrics/  
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- Oncology/Hematology
- Invasive Cardiology
- Family Practice
- Surgery-Vascular  
Fellowship
- General Internal Medicine

For more information call:

Roger Greenwald, Administrator or  
B.C. McGregor, M.D., President

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Liberal vacation and meeting time, standard benefits package, and above average salary leading to shareholder status in the corporation with minimum buy-in.

For more information contact:  
John Sieve, Administrator  
Worthington Medical Center, P.A.  
508 Tenth Street, P.O. Box 86  
Worthington, MN 56187  
Phone: 507-372-2921



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\* *High Times/Low Times: The Many Faces of Adolescent Depression* by John E. Meeks, M.D.

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**Family Practice:** A progressive, 126-bed, two-hospital system is seeking the above specialties to establish practices in the Iron Mountain area of Michigan's Upper Peninsula. Must be BE/BC. Located 100 miles north of Green Bay, Wisconsin. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Diagnostic capabilities include a CT scanner, CO<sub>2</sub> laser, and a fully staffed special diagnostic department. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4500. \*2-6/90

**Ophthalmologist** to start part time and work into full-time practice. Downtown Minneapolis. Call: 612/332-7745.

(1/90-R)

### Positions Available in Family Practice, Internal Medicine, Obstetrics/Gynecology, General Surgery, and Pediatrics:

28-physician multispecialty clinic seeking additional physicians in FP, IM, Ob/Gyn, GS, and Peds departments. Interstate Medical Center offers a competitive salary, comprehensive benefits, and the support and team approach of a multispecialty environment. Red Wing is a mid-sized community along the bluffs of the Mississippi River only 40 miles from the Minneapolis/St. Paul area. Area highlights include an excellent school system, a growing cultural environment, water recreation, skiing, and an active business climate. Red Wing has all the benefits of a

metro area in a serene setting. For additional information, please call or send CV to: Don Bruns, M.D., Highway 61 West, Red Wing, MN 55066; 612/388-3503. \*3-5/90

**Internist** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809.

(\*3/90-R)

**Minnesota Lakes and Trees:** Family physician to join five others in progressive multispecialty group including internal medicine and surgery. Outstanding 42-bed district hospital with 130-bed long-term care facility. Excellent schools and services with easy access to metro area. Guaranteed salary, full benefits, and bonus. Position available immediately. For confidential consideration and further information, contact: Mary Jo Cordes, MDsearch, PO Box 21507, St. Paul, MN 55121. Call collect: 612/454-7291.

3-5/90

**Family Practitioner** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809.

(\*3/90-R)

**Quality Childcare** in your home. Summer or year-round nannies. College educated. Personally interviewed. Contact: Rebecca's Nanny Agency, 3020 SE Lake Victoria, Alexandria, MN 56308; 612/763-4610. 2-5/90

**Wisconsin—Family Practitioner Needed** by progressive and growing group practice in west-central Wisconsin city of 55,000. Ninety miles from Minneapolis/St. Paul. Primarily prepaid practice with large component FFS. Highly competitive salary with excellent fringe benefits. Practice high-quality care in a good recreational area. Send CV to: Stuart Lancer, M.D., 1030 Regis Court, Eau Claire, WI 54701; 715/836-8552. \*2-5/90

**Orthopedic Library:** 1. *JBJS—American and British—1953-88*, inclusive; 2. *Clinical Orthopedics*, Vol 51-220; 3. *Orthopedic Clinics of North America*, 1970-89. If interested please call: 712/277-7686. 2-5/90

**Family Physician and General Surgeon** BC/BE to join progressive 20-physician multispecialty group practice. Advantages of rural setting with metropolitan practice style, 25 miles from Minneapolis. Group has excellent reputation and large geographical referral area. Our newly expanded facility is adjacent to a 110-bed hospital. Comprehensive benefit package with excellent remuneration. For more information, contact: Bruce Hoggarth, M.D., or Bob Wilcox, Administrator, Lakeview Clinic, Ltd., 424 State Highway 5 West, Waconia, MN 55387; 612/442-4461 or 612/446-1295. 2-5/90

**Family Physician:** Excellent opportunity for BC/BE family physician in well-established suburban group of six. Good

diversity of patient population. Superb relationship with consultants in progressive community hospital. Competitive salary/fringes. Opportunity for early partnership. Send resume or contact: Dr. Marv Brooks, Douglas Drive Family Physicians, PA, 3501 Douglas Drive North, Minneapolis, MN 55422; 612/533-2721. 2-5/90

**Ob/Gyn, Family Practice, Internal Medicine, Pediatrics:**

Several attractive opportunities in *Michigan, Wisconsin, and Indiana* (many on lakes) for BC/BE physicians. Contact: Bob Strzelczyk to discuss your practice requirements and these positions. *Strelcheck & Associates, Inc.*; 12724 North Maplecrest Lane; Mequon, WI 53092; 1-800-243-4353. \*2-5/90

**Rheumatologist:** 115-physician multispecialty clinic in the Fox River Valley of northeastern Wisconsin desires a BC/BE rheumatologist to join a department of three BC rheumatologists. Two-year guarantee plus comprehensive benefit package offered. This area, which encompasses Appleton, Neenah, and Oshkosh with a combined population of 300,000+, offers a superb recreational, cultural, and family environment in which to practice. For information please call or write: Roger Rathert, M.D., La Salle Clinic, 411 Lincoln Street, Neenah, WI 54956; 414/727-2702. 2-5/90

**Internist—Great Opportunity!** Very busy, young solo internist seeking ambitious associate. Family-oriented community on Lake Winnebago with a population of 40,000. No HMOs or PPOs. A unique opportunity for someone who is genuinely interested in internal medicine and in its subspecialties. An interest in critical care would be of importance. Send CVs to Michael Sergi, M.D., 14 North Main Street, Fond du Lac, WI 54935. 3-6/90

**Minneapolis, Minnesota:** Suburban practice, just 10 minutes from downtown. Multispecialty group with 25 family practice physicians has an excellent opportunity available. Call is one in 25 weekdays and one in four weekends (one day); full day off during week, excellent compensation, and unparalleled benefits program. Call: Robert Hovda, M.D., 612/788-9601, or write: Columbia Park Medical Group, #480, 6200 Shingle Creek Parkway, Brooklyn Center, MN 55430. 3-6/90

**Family Practice:** Family practice physician needed to join an established 14-physician state-of-the-art clinic in a ranching community in South Dakota. Competitive salary guaranteed, plus generous tuition reimbursement-housing-transportation bonuses offered. Malpractice insurance covered. Limited call. Flexible schedule. Outdoor recreation abounds, including hunting, fishing, boating, skiing, and golfing. Cultural opportunities: Allied Concert Series programs. Send resume or inquiries to: Helen S. Lindquist, Administrator, Five Counties Hospital and Nursing Home, PO Box 479, Lemmon, SD 57638; 605/374-3871. 3-6/90

**Central Plains Clinic, Ltd.,** a 70-physician multispecialty group, is seeking BC/BE physicians in the following special-

ties: dermatology, infectious disease, internal medicine, neurology, and otolaryngology. Central Plains Clinic is located in Sioux Falls, South Dakota, a progressive regional tertiary care medical center with a very favorable tax climate. Guaranteed first-year salary with incentive thereafter along with full benefit package. Contact: Michael R. Ferrell, M.D., Central Plains Clinic, Ltd., 2727 South Kiwanis Avenue, Sioux Falls, SD 57105; 605/331-3490. \*3-6/90

**Small Hospital** 45 minutes west of Minneapolis has noted geriatric program. First-year minimum salary of \$50,000, plus 37 percent adjusted revenues, four weeks' vacation, two weeks' CME, 401(K) pension plan, malpractice. Lakeside community. Call: Wanda Parker at 1-800/221-4762, or collect 212/599-6200. \*4-7/90

**Small, Progressive Hospital** in southwestern Iowa seeking third family practice physician. First-year minimum income guarantee \$70,000, plus benefits. Omaha, Nebraska, within hours' drive. Specialists from Omaha provide clinics/backup. Call: Wanda Parker, 1-800/221-4762, or collect 212/599-6200. E.G. Todd Associates, 535 Fifth Avenue, Suite 1100, New York, NY 10017. \*4-7/90

**Family Practice, Internal Medicine, Pediatrics, Urology, Obstetrics and Gynecology, Dermatology, and Orthopedics** practice opportunities available at the Faribault Clinic. The Faribault Clinic is a multispecialty group practice of 14

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physicians. Faribault is located 50 miles south of Minneapolis on I-35. For more information contact: Ray W. Wood, M.D., or Ken Smith, Administrator, 924 NE 1st Street, Faribault, MN 55021; 507/334-3921. (4/90-R)

**Forest Lake Doctor's Clinic** is seeking a BC/BE family physician, pediatrician, ob/gyn, and internist to join 10-physician multispecialty group. Located 25 miles north of Minneapolis-St. Paul, in progressive community, with excellent schools, many beautiful lakes, recreational activities, golf, fishing, boating, skiing. Local hospital directly across street. Contact: Dr. Harvey J. Frank or Dr. Doug Sill, 121 SE 11th Avenue, Forest Lake, MN 55025; 612/464-7100.

(4/90-R)

**Psychiatric Practice for Sale** in Hutchinson, Minnesota. Completely modern facility. Approximately two-thirds hospital work (in a 12-bed mental health unit), one-third outpatient cases. Must be BC/BE. Patient base covers a wide area—from the Twin Cities to South Dakota. For more information contact: Eileen Fluegel, 612/587-8457.

(4/90-R)

**Internist:** Full-time position as chief of Medical Services available July 1. Position includes provision of medical care, coordination of medical services, supervision of admission clinic, direction of infection control program, and responsibility for quality assurance activities. Regular working hours, competitive salary, paid vacation, oppor-

tunity to teach medical students, and excellent benefits package make this an attractive position for the person who wants ample personal time. Contact: Myron Malecha, M.D., Medical Director, Anoka-Metro Regional Treatment Center, 3300 4th Avenue North, Anoka, MN 55303; 612/422-4240.

3-7/90

**Chief of Family Practice:** Hennepin County Medical Center, a major affiliate of the University of Minnesota, is inviting applications for the position of full-time chief of family practice. Qualifications: board certified in family practice; demonstrated management and leadership skills including fiscal affairs; ability to coordinate educational and service programs with other specialty programs and with the University of Minnesota; minimum residency completion, plus three years' practice and/or teaching experience, or internship plus five years' practice and/or teaching experience. Candidate must satisfy the following requirements for appointment to faculty of the University of Minnesota: assistant professor—demonstrated involvement in quality research accepted or published in peer-reviewed journals; associate professor—professional distinction in research and writing and demonstrated effectiveness in teaching and advising; professor—national reputation in research and evidence of leadership in candidate's professional field. Application deadline is June 30, 1990.

Address inquiries about the position with copy of CV to: Thomas Rolewicz, M.D., Chairman, Family Practice Search Committee, Hennepin County Medical Center, 701

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Recruitment package includes relocation assistance, 1st year guaranteed income, referrals and practice set up guidance. New grads welcome.

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Ramsey Clinic, a 215-physician multi-specialty group practice operates a small network of branch clinics that extends from the Minneapolis/St. Paul metro area to rural communities in Minnesota and Wisconsin. Because of expanding practices, primary care physicians are being considered for positions at:

Baldwin, Wisconsin  
Rush City, Minnesota  
Osceola, Wisconsin

Physicians practicing in the branches enjoy the many advantages of membership in a large group practice and the atmosphere of a private practice clinic. The positions offer attractive salaries, complemented by an outstanding benefits package. For particulars, kindly forward your C.V. or contact: Loriesse A. Stoll, Director of Professional Services, Ramsey Clinic, 640 Jackson Street, St. Paul, MN 55101-2595; (612) 221-3067 or David Perry, M.D. at (612) 221-1868.

***Ramsey Clinic***



**Positions Available in  
Family Practice,  
Internal Medicine,  
Obstetrics/Gynecology,  
General Surgery, and  
Pediatrics:**

Red Wing provides an ideal practice and living environment. Along the bluffs of the Mississippi only 50 miles from Mpls./St. Paul, Red Wing has a thriving economic and business climate, progressive hospital, excellent school system, multi-faceted cultural environment, and abundant summer and winter recreational opportunities. Interstate Medical Center, a 28 physician group with comprehensive ancillary services, provides very competitive salary and benefits, team approach and support of a multi-specialty group. Contact: Don Bruns, M.D., Interstate Medical Center, Highway 61 West, Red Wing, MN 55066 (612) 388-3503.



Park Avenue South, Minneapolis, MN 55415.

The University of Minnesota and the Hennepin County Medical Center are equal opportunity educators and employers, and specifically invite and encourage applications from women and minorities.

1-5/90

**General Internist with Psychiatry Interest:** Marshfield Clinic, a multispecialty group practice with over 300 physicians, is seeking a medical director for the inpatient psychiatry unit. A BC/BE internist with psychiatry experience is preferred. The medical directorship of the psychiatry unit is half time, and the applicant may develop the other portion of practice to meet his or her practice interest. This could include a private practice or noncontinuity of care practice such as a walk-in clinic, pre-op evaluation, or employee health clinic. Starting salary is negotiable but very competitive, and the fringe benefit package is outstanding. Send CV and references to: David L. Draves, 1000 North Oak Avenue, Marshfield, WI 54449; or call collect 715/387-5376.

\*1-5/90

**Family Practice:** Marshfield Clinic, a multispecialty group practice with nearly 350 physicians, is seeking BE/BC family practitioners to join expanding regional centers. Practice opportunities range in size from single specialty groups of three to multispecialty groups of 25. Positions available in six locations: two in northwestern Wisconsin within 70 and 90 miles of Minneapolis, two in north-central Wisconsin within 80 and 90 miles of Lake Superior,



**DULUTH, MINNESOTA**

The Duluth Clinic, Ltd. a 160-physician regional medical center, has opportunities for physicians in the following specialty areas:

- Cardiovascular Surgery
- Electrophysiology
- Emergency Medicine
- Family Practice
- Hematology-Oncology
- Internal Medicine
- Neurology
- Physical Medicine and Rehabilitation
- Psychiatry

For more information, contact:

Timothy D. Zager, M.D.  
Recruitment Coordinator  
The Duluth Clinic, Ltd.  
400 East Third Street  
Duluth, MN 55805 • 218/722-8364

 **The Duluth Clinic, Ltd.**  
A Regional Health Care System  
*An equal opportunity employer.*

and two in central Wisconsin within 25 and 35 miles of Marshfield. Full specialty consultation readily available. Positions offer strong economic stability combined with exceptional recreational, cultural, and educational opportunities. Starting salary up to \$92,160 with salary in two years up to \$116,400. Fringe benefit package outstanding. Send CV and references to: David L. Draves, Director, Regional Development, 1000 North Oak Avenue, Marshfield, WI 54449; or call collect 715/387-5376.

\*1-5/90

**General Internist:** Marshfield Clinic, a multispecialty group practice with nearly 350 physicians, is seeking BE/BC general internists to join its 30-member section in Marshfield and three expanding regional centers in northwestern and north-central Wisconsin. An internal medicine residency program, University of Wisconsin Medical School affiliation, and Medical Research Foundation contribute to a very stimulating practice environment. Positions offer strong economic stability combined with exceptional recreational, cultural, and educational opportunities. Starting salaries up to \$92,100 with salary in two years up to \$116,400. Fringe benefit package is outstanding. Send CV to: David L. Draves, Director, Regional Development, 1000 North Oak Avenue, Marshfield, WI 54449; or call collect 715/387-5376.

\*1-5/90

**Primary Care Physician:** Marshfield Clinic is seeking a primary care physician to join its expanding seven-member



Emergency Medicine Department. Emergency medicine, urgent and ambulatory care, plus supervision and training of ER staff contribute to a very stimulating practice environment. More than 26,000 ER visits and 13,000 ambulatory care visits annually. Specialists representing all branches of medicine and surgery provide support care and services. Marshfield Clinic is a private group practice consisting of 350 physicians and is physically adjacent to Saint Joseph's Hospital, a 525-bed acute care teaching facility. Send CV to: John P. Folz, Assistant Director, Marshfield Clinic, 1000 North Oak Avenue, Marshfield, WI 54449; or call collect 715/387-5181. \*1-5/90

**General Internist with Interest in Preoperative Evaluations:**

Marshfield Clinic multispecialty group practice with over 300 physicians is seeking a BE/BC general internist to staff a preoperative evaluation clinic. There is no hospital practice, night or weekend call. This is a half-time position, and the applicant may develop the other half of practice to meet his or her practice interests, which could include staffing a walk-in clinic, employee health clinic, or development of a private practice. Salary negotiable but very competitive depending on the type of practice developed, and the fringe benefit package is outstanding. Send references and CV to: David L. Draves, 1000 North Oak Avenue, Marshfield, WI 54449; or call collect 715/387-5376. \*1-5/90

**Family Practice:** The Sterling/Rock Falls Clinic, a 31-physician, multispecialty group seeks two family practitioners

for satellite clinics. Each site affords the opportunity to be busy from day one and has the full support of each community and physicians at the main clinic. Located among rolling hills of a beautiful river valley and rich farmland, there is easy access to the Quad Cities, Rockford, Peoria, and Chicago, as well as superior quality of life. Excellent first-year guarantee and benefits. For additional information call: Diane Dieringer at Caswell/Winters, 1-800/332-0488 or (414/359-1111 in Wisconsin). 1-5/90

**AIM HIGH:** Be an Air Force physician in a sophisticated medical environment. The benefits are excellent, and vacation consists of 30 days with pay per year. Talk to an Air Force medical program manager about quality lifestyle and quality practice with a non-contributing retirement plan if you qualify. Learn more about becoming an Air Force physician. Call: USAF Health Professions (collect), 612/331-2856. AIR FORCE. \*1-5/90

**Internal Medicine:** The Sterling/Rock Falls Clinic, a 31-physician, multispecialty group, seeks an internist to join five others. One internist will retire in January 1991; a busy practice can be assured in a recently remodeled, contemporary clinic adjacent to a fully accredited 135-bed hospital. Subspecialty interest in PUD, ID, or RHU would be a bonus but not mandatory. The cities of Sterling/Rock Falls are nestled in the wood Rock River Valley and offer not only outstanding quality of life but easy access to the Quad Cities, Rockford, Peoria, and Chicago. Excellent guarantee

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**East Range Clinics, Ltd.**

Clinics at Virginia, Aurora, and Eveleth, Minnesota

For **NEW** information about practice opportunities in:

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- OB/GYN
- Internal Medicine
- Orthopedics

Excellent W2 taxable income plus productivity bonus. Generous benefit package. Eligibility for full partnership after one year.

Call or send CV  
in strictest confidence to:  
Rosemarie Slocum  
Director, Physician Recruitment  
East Range Clinics, Ltd.  
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\*1-5/90

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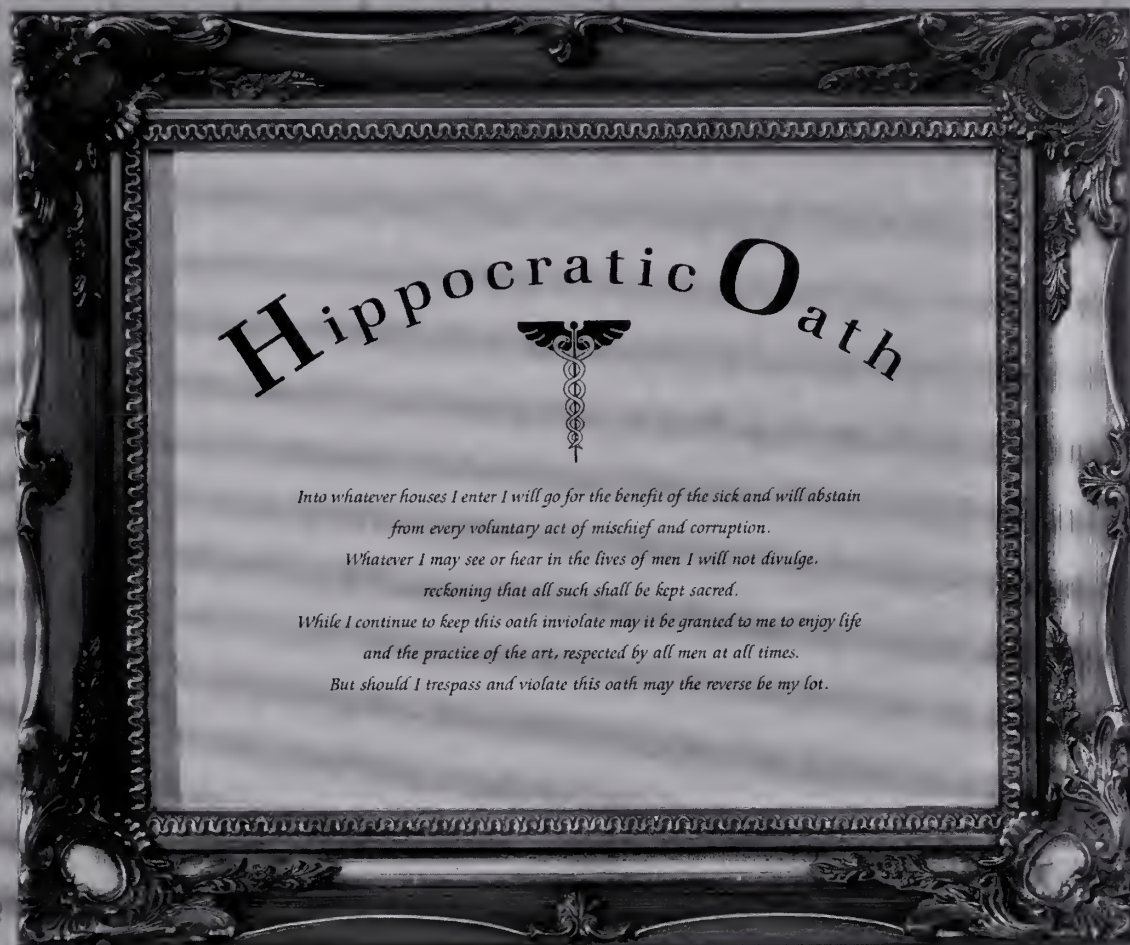
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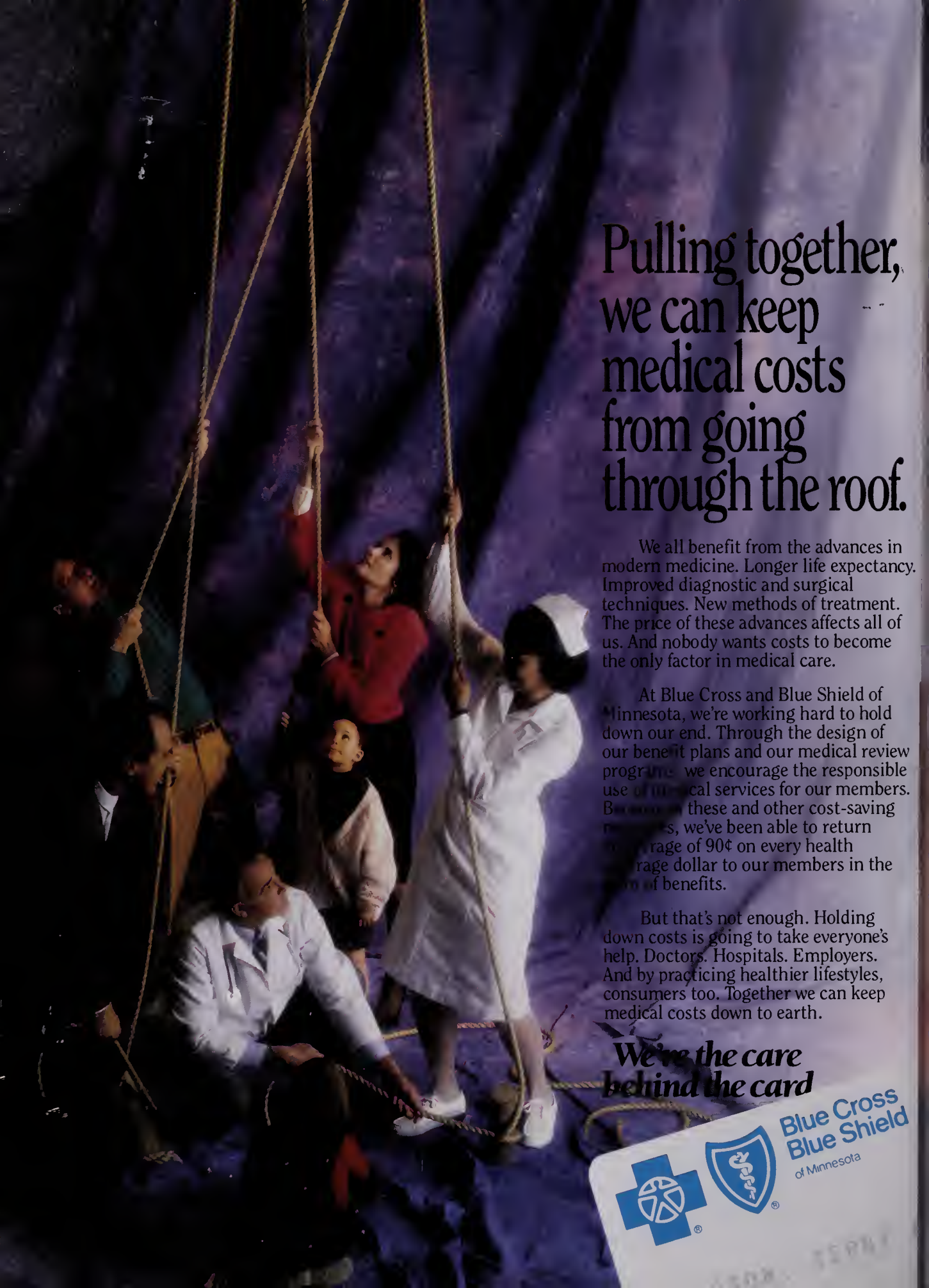
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MEDICAL TREATMENT

JUNE 1990



# "Bone Marrow Transplants In A Community Hospital Can Improve Access And Continuity Of Care."



*Dr. Kathleen Ogle  
Bone Marrow Medical Director*

Methodist Hospital recently instituted a Bone Marrow Transplant Program. Through this program, adult patients with advanced and/or high risk malignant lymphomas, Hodgkin's disease and acute leukemias will receive autologous bone marrow transplants.

As part of the commitment to the program, Methodist has designed a special unit for bone marrow patients. The unit provides a sterile environment for the care of severely immunocompromised bone marrow transplant patients. It is part of a larger oncology intensive care unit to be completed next year.

Traditionally, bone marrow transplants have been performed in a teaching or research hospital setting. However, today it is possible to carefully design this specialized program and bring the clinical expertise to the community hospital. Referring physicians are kept apprised of their patients' conditions and included in after-care recommendations. Since patients with these advanced malignancies can no longer be considered curable by

standard means, bone marrow transplants represent a chance for long term disease-free survival.

Methodist Hospital has had a cohesive Cancer Care Support Team for eight years. This team of oncology specialists and sub-specialists, nurses, technicians, pharmacists, therapists, social service staff and others provide a coordinated care plan for patients to lead to an effective recovery.

Bone marrow processing is performed by the nationally recognized program at the Memorial Blood Center of Minneapolis. For more information on the Methodist program, or if you would like to discuss the program with me, call Cancer HelpLine, 932-5700.

♥ METHODIST HOSPITAL  
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*Leading The Way*

# Minnesota Medicine

A JOURNAL OF CLINICAL AND HEALTH AFFAIRS



## COVER

*Unorthodox Medical Treatments* are nothing new. For ages, patients with cancer, arthritis, back problems, and a host of chronic illnesses have sought help outside the realm of traditional medicine.

This month's cover story (page 19) examines the challenges this poses to physicians, who worry that patients lose valuable time, and often money, pursuing quack treatments, but who also have found that some alternatives offer patients a sense of control that modern medicine doesn't provide. Cover art by Gail Swanlund.

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# Helping Payers to Understand Quality

Richard L. Reece, M.D.

As I travel around the country talking to various groups about managed care and its impact on doctors, three truths keep rearing their heads amongst all the confusion:

1. The new "customer" for physicians is not the patient; it is the payer. Satisfying patients, diagnosing their ills, trying to cure their diseases, and treating them compassionately and effectively is no longer enough. Now we must satisfy those paying the bills that we are carrying out these traditional physician-patient functions in a reasonable and rational way and that our results are measurable.

2. Physicians, especially those in large institutions, must agree among themselves and among their peers in other institutions as to what constitutes quality and how it can be measured before we can quantify it.

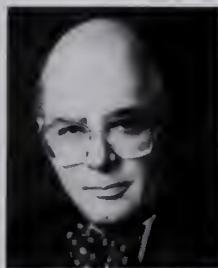
3. The key ingredients that constitute quality must be expressed in quantitative terms that the payers can understand.

## Past 'Measures' of Quality No Longer Acceptable

Physicians, in short, can no longer argue that their work is acceptable because they are board-certified specialists, or that they are superior because of the volume of procedures they have performed, or that their reputations ought to lead to automatic acceptance of their skills, or that because they are working for large, well-known institutions they are superior by association.

## Cold, Hard Facts

As health care costs have continued to skyrocket, and as surging and shifting technology has made the "product" a moving target that is



"Quality must be expressed in quantitative terms that the payers can understand."

more difficult to define, payers have begun to insist on seeing the results or "outcomes" as cold, hard numbers rather than as warm, fuzzy expressions of self-aggrandizement.

## Getting to the Point

So much for prologue. What I'm leading up to is this: I recommend that you read Dr. James Moller and his co-authors' article "Demonstrated Value of a Physician-directed Quality Assessment System" (page 26) as a model of what physicians can do to assure payers they are getting their money's worth.

Moller and his team describe an assessment system for analyzing inpatient results in children with cardiac abnormalities among three Minnesota institutions (the Mayo Clinic, the Minneapolis Children's Medical Center, and the University of Minnesota) and 15 similar centers elsewhere in the United States.

They analyze results among these centers for two operations—ventricular septal defect and aortic stenosis—

they adjust for case mix severity, and they show differences in such things as mortality, morbidity, and length of stay. Each year physicians at the various institutions discuss and review the data and institute the necessary changes to correct bad results.

According to Moller et al., "The results [of such analysis] are an important means for the cardiologists at each center to evaluate their data and their performance. They feel comfortable with the method because they were involved throughout the process, and they understand its rationale and the factors that went into the analysis."

Because of this acceptance, the authors add, "The program continues to expand to include voluntary participation of additional centers. Several reasons have been given for joining: 1) the data are useful, 2) the cost is low, 3) the potential exists for answering important questions regarding cardiac disease in childhood, and 4) physicians want to evaluate their performance. No center has been forced to join in order to meet a specific requirement."

## What's Likely to Work for Physicians and Payers

And there you have the gist of what's likely to work for physicians and to satisfy payers who want quality defined quantitatively: physicians working voluntarily together to compile useful, low-cost data that answer important clinical questions and tell them how they're doing. No coercion. No government intrusion. No payer bludgeoning. Just useful, real-world data among physicians in leading institutions to define the state of the art and the reasons for the cost of care.

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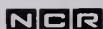
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- recommendation of policy to the House of Delegates on Prioritization of Health Care Expenditures and Notification of Denials by the PRO;
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# HMSS

# International Efforts to Manage Diabetes

*Minnesota Medicine interviews Donnell D. Etzwiler, M.D.*

**W**henever I step inside the Park Nicollet Medical Center, I'm reminded of the power of physician-led organizations to change the shape of the medical landscape. Let me cite three examples:

- First is the founding of Park Nicollet Medical Center—one of the first large urban multispecialty clinics—in the 1950s. The medical center, now the fifth largest among U.S. multispecialty clinics, exerts a powerful influence on how both HMO and fee-for-service medicine are practiced in the Twin Cities.

- Second is the forming of the MedCenters HMO in 1972, opening the floodgates for HMOs. PHP, Share, and Blue Cross and Blue Shield's HMO Minnesota soon followed.

- Third is the start of the International Diabetes Center in 1967. Under the direction of Donnell Etzwiler, M.D., who was present at its creation and still leads its fortunes, this center has become an internationally respected institute. The center is dedicated to the belief that the best way to help diabetic patients is to educate them and their families in managing the disease.

Donnell Etzwiler, a pediatrician who specializes in endocrinology, sees the big picture in medicine and successfully channels resources to the point where they will have the most impact.

There is no doubt in Don Etzwiler's mind that the two big problems in medicine are: 1) our failure to concentrate on how to manage chronic disease, which consumes 80 percent of our resources, and 2) our failure to concentrate on educating patients on how to manage their own diseases. Educated patients are, in the larger scheme of things, their own best physicians, for it is they who can best monitor their progress, spot early complications, take medications, and eat proper diets.

The power of a physician-led organization, according to Dr. Etzwiler, is organizing doctors, other health care professionals, and patients into a team that helps everybody help each other. The most recent addition to the team: the Central Institute for Advanced Medical Studies in Moscow.

**Minnesota Medicine:** Dr. Etzwiler, you are the founder and moving force behind the International Diabetes Center. The center was founded in 1967 and five years ago blossomed into an international institute with new

quarters on the campus of the Park Nicollet Medical Center in Minneapolis. You introduced the concept of a team approach to treating diabetes. In essence, you created a new educational culture to further your beliefs, at the core of which is educating the patient. Why don't we start with your background. How did you come to Minneapolis, and where were you trained?



*Donnell D. Etzwiler, M.D.*

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**“Now we're thinking of diabetes as a model for chronic disease management.”**

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**Etzwiler:** I went to medical school at Yale, stayed there to intern, and then went to New York Cornell, where I completed my residency. I also had an NIH fellowship and was an instructor in endocrinology before entering practice as a pediatric endocrinologist at Park Nicollet Medical Center in 1957. I started seeing more and more diabetic patients and got involved in Minnesota's diabetes camp. Pretty soon almost all my practice was composed of diabetics.

I recognized early that patients were an integral part of health care, that they needed more information, and that they needed to be regarded as part of the health care team. That concept has been validated through the years.

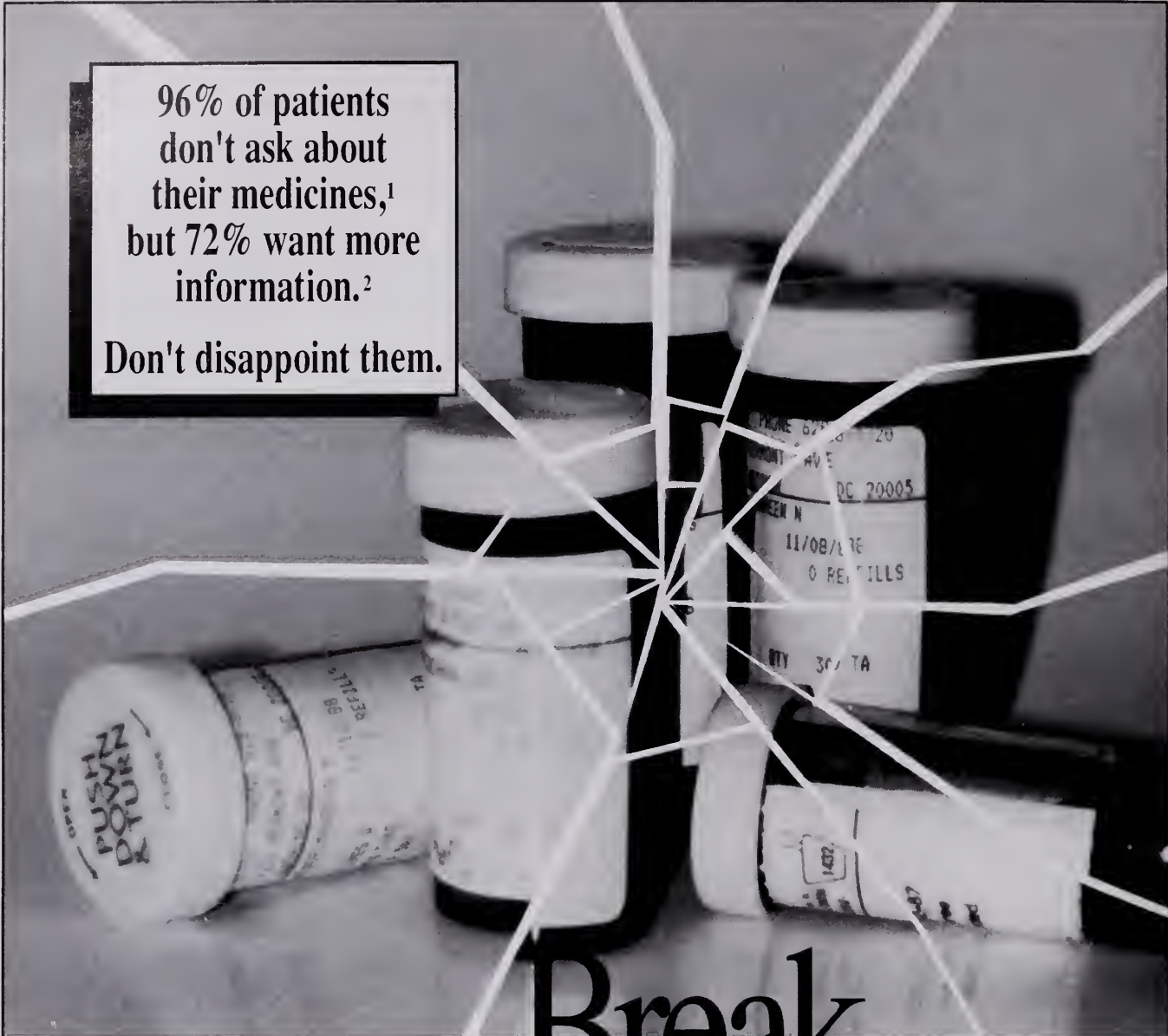
Now we're thinking of diabetes as a model for chronic disease management. With all chronic diseases, patients have to play a very important role. In diabetes, we readily acknowledge that 99 percent of care is managed by patients. They do the injections, take the oral medications, judge what their diet should be, determine their exercise regimens, and even treat insulin reactions or hypoglycemic episodes.

## ***Patient: Treat Thyself***

**Minnesota Medicine:** You must have patient vignettes that led you to view the patient as the key person in managing chronic disease.

**Etzwiler:** One of the first ones I remember was at the





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<sup>1</sup> FDA survey, "Patient Receipt of Rx Drug Information", 1983

<sup>2</sup> A Study of Attitudes, Concerns, and Information Needs for Rx Drugs  
and Related Illnesses, CBS Television Network Consumer Model Survey, 1983

endocrine clinic at the University of Minnesota. I was seeing a child who had repeatedly been given too much insulin. When I asked the mother why this child was having so many severe insulin reactions, she said that she had had a diabetic child who died. The doctor had told her the child died because it didn't get enough insulin. I asked her if she had been checking for ketones. She asked, "What are ketones?"

It was obvious that this mother had lost a child because nobody had really informed her about diabetes management and the basic recognition of such simple things as ketones. As a consequence, she was overdoing her responsibilities by giving her second child too much insulin.

I also conducted studies of nursing students, members of the Minnesota Diabetic Association, and residents at the Hennepin County Medical Center years ago and found that all were short on information. We shared results with the people at the state health department, and they helped us obtain a grant from the U.S. Public Health Service. Initially, just patients were trained, but the program was rapidly expanded to include health professionals. We've now had more than 8,000 health professionals go through our diabetes center.

**Minnesota Medicine:** So you train people statewide, nationally, and even internationally?

**Etzwiler:** The patients are largely from this region of the country, but we see them from other parts of the country and some from overseas. The health professionals are from all around the world. We have been very actively involved with people in Taiwan and a group in Austria. We're also working with Brazilians, Jamaicans, and Costa Ricans. Our latest venture involves a five-year contract with the Central Institute for Advanced Medical Studies in Moscow.

### *Training the Professionals*

**Minnesota Medicine:** Before we get to the Russian experience (after all, we don't want to Russian to conclusions), share with us the nature of the course these professional diabetes educators take.

**Etzwiler:** Our training program for health professionals lasts five days. Part of that time is spent with patients; other portions are designed to meet individual health professionals' needs. The training begins daily at 7:30 a.m. and runs until late afternoon.

We have also developed nine affiliates nationwide. We've trained their teams and provided them with all the materials, administrative help, and guidance.

**Minnesota Medicine:** These affiliates have their own diabetes centers?

**Etzwiler:** Yes. Diabetes centers are a very effective way of

reaching a large patient population. It's not our goal to have everybody from the United States come to Minnesota, but to spread the concept and assist other groups in setting up teaching programs.

### *Educating the Patients*

**Minnesota Medicine:** You say "spread the concept." Could you describe the concept again for us?

**Etzwiler:** The U.S. health care system primarily follows an acute care model. We do quite well with acute care—an acute coronary, an appendectomy, or a fractured leg, for example. In that model, physicians provide almost all the input or management skills, and the patient is relatively passive. Currently, though, 80 percent of this country's health care dollars are spent on chronic disease and its management. We do a relatively poor job, in my estimation, of long-term management of these patients. Long-term management programs should consist of informed patients who cooperate with knowledgeable and concerned health professionals in planned systems of care.

Long-term management programs should be a major area of research, but our delivery system is going to have to change dramatically for that to happen.

**Minnesota Medicine:** And this major change will be principally in outpatient care?

**Etzwiler:** Yes. We'll also have to set standards for health care. In the past, most of these standards have evolved out of litigious situations or were instigated by third-party payers. More professional groups are starting to develop and publish standards.

It's imperative that as health professionals we participate in the establishment of those standards. We are also attempting to identify standards for patients, since they provide the bulk of their care. They must be thought of as having as much responsibility in the management of chronic disease as health professionals.

For instance, we may not always hold to the belief that malpractice should involve only the medical profession. The time may come when patients are sued for malpractice in chronic disease management. The idea of patient malpractice is only an interesting concept now, but we all see patients every day who don't carry out what we have asked them to do or what we prescribed. You can hardly put all of the blame on the medical profession if you get disastrous outcomes.

**Minnesota Medicine:** That makes sense to me. After all, patients are with doctors only one percent of their time.

**Etzwiler:** Absolutely. The idea of patient malpractice validates the concept of patient involvement in the team. It legitimizes it.

**Minnesota Medicine:** How do patients respond to this new educational milieu?



**Etzwiler:** Very well, but we need long-term studies to show that active patient involvement improves long-term results. We're one of the groups in the National Institute of Health, Diabetes Control and Complication trials. That's a long-term management program now in its sixth year. It's unbelievable the amount of planning, support, encouragement, and contact required to ensure that these patients monitor their diabetes meticulously over prolonged periods of time.

We see these patients in the experimental group at least once a month, and we're on the telephone one or two times a week with them. We have all kinds of reward systems to encourage these patients to comply: we take them to ball games, we send birthday cards, we attend weddings. Education is important in the future, but we also have to look at systems that support, motivate, and reward patients for carrying out quality care.

**Minnesota Medicine:** I gather the patient-physician relationship entails a closer interaction at all levels. You seem to be indicating that people with chronic disease need a more closely woven support system.

**Etzwiler:** Yes, and this closer interaction concept is currently lacking in medicine. I see this concept as part of the fun of practice. We're a laboratory for enhanced and improved medical care, particularly in chronic disease.

**Minnesota Medicine:** So you envision a decentralized system with closer proximity to the patients?

**Etzwiler:** Absolutely.

### *The Soviet Exchange*

**Minnesota Medicine:** Let's get back to the Soviet Union. How did the Russian connection develop?

**Etzwiler:** We've always been interested in working with different countries. A year and a half ago, a medical trade commission from Minnesota visited the Soviet Union. Someone from state government called and asked us if we would like to send somebody to the Soviet Union to talk about diabetes. Our administrator went over and made the appropriate contacts.

Then four Soviet physicians visited us for two weeks in April 1989. We signed a five-year contract with their Central Institute for Advanced Medical Studies to help

them train health professionals in the Soviet Union. There are 1.3 million physicians in the Soviet Union, and they wanted us to help them with their postgraduate education. The Central Institute is responsible for the continuing education of all Soviet physicians.

We flew over in September 1989 to assess their needs and their resources. We spent most of the time in Moscow, but they also took us to Tbilisi, Georgia, and Leningrad. In the fall we had our patient manual translated into Russian and sent it to the Soviet group. They reviewed it, edited it, and sent it back. We took manuals with us and also had slides translated into Russian.

In January, we spent six days in Moscow with 45 leading Soviet endocrinologists from all over the nation and 20 physicians from the Central Institute in Moscow talking about patient education and diabetes management. We spent three of those days actually teaching patients in front of the health professionals so we could demonstrate how you convey information and adapt programs to individual patient needs. The Soviets will be visiting us this June, and we plan to be back over there next fall.

**Minnesota Medicine:** What are your impressions of Soviet medicine? How does it compare with our system?

**Etzwiler:** There are stark contrasts between our system and theirs. They're fascinated with all new technology, and they want to have as much of it as possible. Often, however, the technology is sitting there and is not really integrated into their services. In general, their physicians are reasonably well trained; however, they don't have many subspecialists. They're proud that their citizens have ready access to primary, secondary, and tertiary health care. In one of the clinics we visited, patients just went over to the doctor's appointment book, wrote in their names, and automatically had that referral.

They have a lot of shortages in very important areas. For instance, they need about 3 billion syringes per year, and they have the capability of producing only about 800,000. And, obviously, they don't have enough rubles to buy syringes outside the country. The same thing is true with insulin. At one time they had five or six insulin plants, but three of those were shut down because of the poor quality of the product. Foreign companies are now working with the others to help them enhance the

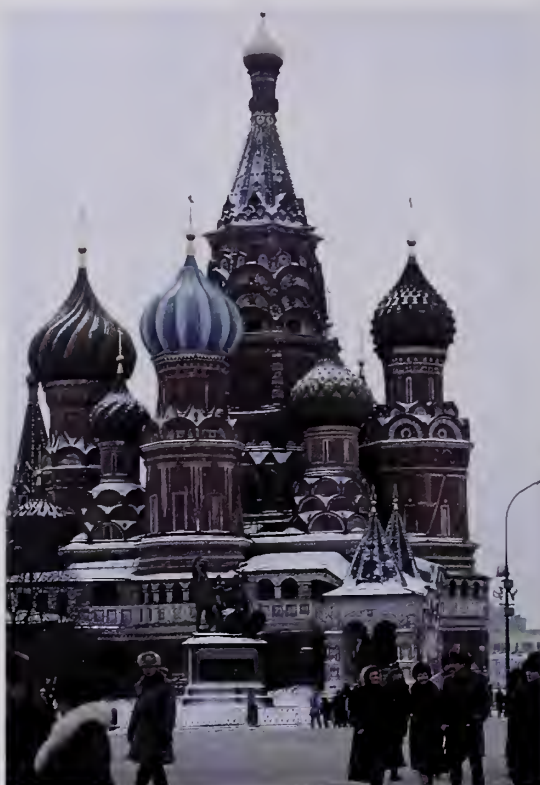


PHOTO BY DONNELL ETZWILER, M.D.

development of quality products.

**Minnesota Medicine:** From what you just said, there are about twice as many physicians per capita in the Soviet Union as in the United States. I also read it has twice as many hospital beds.

**Etzwiler:** Lots of hospital beds, and no concern for costs. Their answer to quality care is more doctors and more hospital beds. Three-fourths of the physicians are women, and they have a pyramidal system of care where the patients are at the bottom and are supposed to do what they are told. Patients seem to accept this autocracy, but how well they carry out instructions is highly questionable.

**Minnesota Medicine:** Is there any private medicine?

**Etzwiler:** Yes. There's great interest now in private medicine, but there's not much available. A fair number of physicians provide private care. Soviet physicians are paid less than teachers. Their income is scant, so many of them have to moonlight.

### *Soviet Diabetes Treatment*

**Minnesota Medicine:** Let's suppose I'm a Soviet citizen with early diabetes. What are the chances of my diabetes being detected?

**Etzwiler:** If you live in a larger metropolitan area, your diabetes probably would be detected early. If you're out on the Siberian plains, where competent health care is not readily available, your diagnosis might be delayed or not made. One of the problems, as in most areas around the world, is that one can get better medical care in large cities, since physicians have a tendency to gravitate toward cities. But physicians can't just decide that they'd like to practice in Moscow or other large cities. They have to get a job offer and find an apartment—both of which are difficult to come by. The Soviet Union has internal passports, which greatly impede moving freely and living wherever you wish.

**Minnesota Medicine:** Suppose I am a severe diabetic in Moscow. What are my prospects for adequate treatment?

**Etzwiler:** There are certainly some very competent endocrinologists. We found that doctors in community clinics readily referred patients to diabetologists at the larger hospitals. In fact, we're working with a railroad union hospital that brings people in from all around Russia for short-term diabetes care and management.

If you were a severe diabetic and you had the right access to the system, you would get quality care. The general use of glucose monitoring, however, is beyond their current fiscal capabilities. You would probably take urine tests, but even with this, it might be difficult for you to get urine testing materials. Your chances of getting human insulin would be very limited. The insulin that you'd be getting might be borderline, and if you had a syringe, you might need to use it for a few months rather than dispose of it and use a new one every day.

Foods are seasonal, and they are limited. In the

grocery stores we visited, the potatoes and the beets had just been dug out of the ground and were stacked in big piles. On the counter were smaller stacks. They were the only things you could buy at that point—potatoes, beets, and cabbage.

**Minnesota Medicine:** Do you consider the ordinary Soviet's diet compatible with good diabetes management?

**Etzwiler:** Not at all. Bread, potatoes, and sausage are the main items. Of all the stores I went into, I saw only one that had meat other than sausage. It's mainly a question of what size sausage you want if you're going to eat meat.

### *Glasnost, Dayton's, and Byerly's*

**Minnesota Medicine:** We surely can't end this interview without discussing the impact of perestroika and glasnost on what you observed. How have these new policies of openness affected Soviet physicians?

**Etzwiler:** It's a fantastic time to be there. We noticed significant changes in attitude between our first visit in September and our next visit in January. During our first visit, people were anxious to talk to us and tell us what it's like. They wanted to hear what's going on in the rest of the world. People would say to us, "Two or three years ago, we could not have talked to you. As a matter of fact, a few years ago, we wouldn't even talk to our fellow workers, because people would just disappear. You couldn't share a confidence, sometimes even within your own family."

During our January visit, ordinary citizens were in Red Square with bullhorns and loudspeakers, calling to crowds and discussing things openly just a short distance from KGB headquarters.

I believe it's an important time for Americans to reach out to these people. The Soviets are going through a very difficult and turbulent transition. How it will end, I don't know. We were wonderfully received, and the physicians were deeply grateful for anything we shared with them.

**Minnesota Medicine:** As I understand it, the Russian physicians came to Park Nicollet Medical Center and the International Diabetes Center here in Minneapolis for two weeks. What were their impressions of American society?

**Etzwiler:** One of the outstanding experiences in my life was taking the four Russian physicians downtown and walking into Dayton's. They had never seen anything like our variety and abundance of goods. Their largest department store, G.U.M. in Moscow—the largest in the world—has many small departments, but they all have the same things, and the quality is abysmal. These people were astonished to see our shelves and the number of dresses and suits—all the things we take for granted. It really opened my eyes, too. One of the Russian physicians said he had heard about these kinds of stores, but he would never have believed it if he hadn't seen it himself.

*Continued*



We also took them to Byerly's. Their first thought was that it was a show. Their second thought was, "Who can buy here?" In Russia, there are certain select stores in which top Soviet politicians and foreigners shop. When we told them Byerly's was part of a chain of stores, they were startled. And, of course, the choices of food overwhelmed them. Not all of them believed it.

**Minnesota Medicine:** And what were their impressions of American medicine?

**Etzwiler:** The Soviets have a high regard for medicine as practiced in the United States. They have little awareness of our concerns for cost and believe we have all the latest equipment available. They have no understanding of malpractice and are astounded by physicians' incomes and the high regard shown to physicians.

### *In Conclusion . . .*

**Minnesota Medicine:** Just to sum up, you've spent an entire professional lifetime in the field of diabetes, and you've devoted the last 23 years to this international institute. What are your thoughts as you look ahead?

**Etzwiler:** I believe I have lived through the golden era of medicine. Medicine is now in a great deal of turmoil. As physicians, we need to make changes. Our big contribution is involving patients in their own care—in team management—and enhancing chronic disease management. MM



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Captain, U.S. Army Reserve.

**EDUCATION** University of Southern California, B.S.;  
University of California School of Medicine.

**RESIDENCY** Harbor General Hospital—UCLA  
Medical Center.

**HOSPITAL AFFILIATIONS** St. Luke Hospital;  
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**References**

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**Laboratory Tests**—False-positive tests for urobilinogen with Multistix<sup>®</sup> may occur during therapy.

**Drug Interactions**—No interactions have been observed with theophylline, chloriazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

**Carcinogenesis, Mutagenesis, Impairment of Fertility**—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, prenatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

**Pregnancy—Teratogenic Effects—Pregnancy Category C**—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers**—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

**Pediatric Use**—Safety and effectiveness in children have not been established.

**Use in Elderly Patients**—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

**Adverse Reactions:** Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in double-blind placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

**Hepatic**—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

**Cardiovascular**—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

**CNS**—Rare cases of reversible mental confusion have been reported.

**Endocrine**—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

**Hematologic**—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

**Integumental**—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

**Hypersensitivity**—As with other H<sub>2</sub>-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H<sub>2</sub>-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

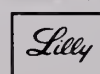
**Other**—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

**Overdosage:** Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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Additional information available to the profession on request.



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# PATIENTS WHO SEEK UNORTHODOX MEDICAL TREATMENT

*By Miriam K. Feldman*

**B**ill Kummer has a self-prescribed healing program. He also has a doctor. This is a story about people, like Bill, who rely on physicians for medical care, but who also try a multitude of alternative therapies in an effort to restore their health. Bill Kummer has AIDS, but this is not a story about AIDS. This is a story about people who believe that traditional Western medicine does not have all the answers—people who believe that there are many ways to heal.

Alternative therapies have been around for years, long before AIDS was discovered. People with cancer, arthritis, back problems, and a host of

chronic illnesses have long been prone to seek help outside the traditional medical community. That help can take many forms. In the Twin Cities, for example, one can easily find practitioners of chiropractic, acupuncture, homeopathy, massage therapy, visualization, spiritual healing, and herbal medicine. Some therapies involve strict dietary regimens, while others prescribe megavitamins. Some are dangerous, while others may be harmless. Nearly all share one common element: they proclaim that the therapy will help boost the body's immune system.

Physicians are divided in their opinions on these therapies. Some say it's all quackery, while others are willing to make distinctions and tolerate the harmless ones. Some even refer patients for alternative treatment, particularly when all else has failed.

The physicians who tolerate some of the benign alternatives understand what motivates their patients to try something different. They understand



that some patients feel let down by traditional medicine, that they feel abandoned by the system, which may have little or nothing to offer them.

**B**ill Kummer was diagnosed with AIDS on Valentine's Day, 1988. His initial reaction was to lock the door, pull down the shades, and keep his diagnosis a secret. But his funk was short-lived, in part because of his association with *PWAlive* (Persons With AIDS Live). Long before his diagnosis, Kummer had been working for *PWAlive*, a Twin Cities-based newsletter that offers all sorts of advice, including health tips, for people with AIDS. The *PWAlive* message appealed to Kummer. While the establishment media were filled with "a lot of doom and gloom and a lot of death messages" about AIDS, *PWAlive* was filled with optimism.

"*PWAlive* seemed to go completely against the tide, offering a message of hope," Kummer said. Its message is simple: It is possible to live longer and to live well with AIDS. "The way to do that," Kummer explained, "is to take some responsibility for yourself."

Kummer sees a physician on a regular basis and was hospitalized once for a fungus infection in his intestinal tract. He walks with a cane and has the bearing of a person older than 41, but his illness has not really slowed him down. Kummer is now editor of *PWAlive*, and he lectures for the Minnesota AIDS Project. He works on a project for the Roman Catholic Archdiocese of St. Paul and Minneapolis helping people, as he puts it, "come to terms with gays and lesbians." He is also producing a video that is intended to be shown in doctors' offices to people newly diagnosed with AIDS. Kummer claims to be busier now than when he worked full time as a community organizer in St. Paul before his illness. He is convinced that his healing program keeps him well.

There are many components to Kummer's healing program, including meditation, visualization, and journal writing, the latter enabling him to pour out his feelings. He listens to tapes that relax him with subliminal messages, and he exercises to a program designed just for him. He also takes a variety of health food store

nostrums including KM, a potassium mineral supplement; chlorophyll, as a cleansing agent; a blue-green algae supplement, which he believes inhibits the AIDS virus from replicating too quickly; and a vitamin B supplement. All are completely non-toxic and do not cause side effects, Kummer says. He rounds out his therapy with AZT, which he gets from his physician.

Typical of the thinking of many people who adhere to self-treatment regimens, Kummer believes that he is playing his part in boosting his immune system. He puts great stock in the fact that he is taking some initiative—some responsibility—for his own health. What's more, he believes that his treatment program works simply because he believes in it. "When I believe the things I take are having an effect, then psychologically, it has an effect. It makes you feel that it's working," he said.

Self-treatment is the proactive side of Kummer's healing program, but there is another side, too. Kummer has learned to filter out disheartening messages regarding AIDS. He disregards negative stories in the media, and he ignores unsettling medical test results, such as low T-cell counts. For him, it's the big picture, he said, not just one test result. "We need to know in the AIDS community what voices to listen to. Every now and then we hear the doom and gloom. That, in a lot of ways, contributes to a sense of abandonment. Then why bother to work at this—at healing? We learn to be more discriminating in terms of what seems helpful to us."

Kummer recalls when Jonas Salk made news at a recent medical conference by proclaiming AIDS to be a chronic, treatable disease. Salk sent a strong message of hope to people with AIDS, he said. "Then a lot of my friends said, 'Well then, I've got to get busy.'" In other words, they had a reason to put together a healing program.

There's nothing wrong with positive thinking, says William Jarvis, Ph.D., an authority on medical quackery. "Positive thinking can certainly affect the way we feel about life and improve the quality of our life," said Jarvis, who is a professor in the Department of Preventive Medicine at Loma Linda University and president of the National Council Against Health Fraud, Inc. But unfortunately, a positive, take-charge attitude will not



ILLUSTRATIONS BY GAIL SWANLUND

alter the course of a disease, Jarvis said. "There's no evidence at all that believing makes any difference as far as a biological course. That hasn't been demonstrated, and, in fact, the evidence has been rather disappointing. The course of science is very predictable."

Nevertheless, the importance of maintaining a positive attitude can't be underestimated, because it has been proven that negative thinking can hasten the course of disease, Jarvis said. The problem is when people believe that positive thinking alone will suffice. "If they begin to abandon the unpleasant medical therapies, then we've done them a disservice. That's the trap."

Irving Lerner, M.D., has been all too aware of that trap since the 1970s, when laetrile hit the market. Lerner, an oncologist in private practice in St. Paul, was president of the Minnesota Division of the American Cancer Society when the group took laetrile on as a project. Since then, he has spoken in 40 states and is regarded as an expert on quackery, particularly quack cancer cures.

Lerner is opposed to all alternative therapies because they're anti-scientific and costly. It's all quackery, as far as he's concerned. Quack cancer cures run the gamut from metabolic treatments that advocate restrictive dietary regimens, to toxic cleansing with coffee enemas. Other popular remedies include DMSO, laetrile, and vitamins. Quack cancer cures, like those for other diseases, often include a mind-body component in which the patient is told, "Get your head fixed if you want to fix the disease," Lerner said.

Despite his vigorous opposition to alternative therapies, Lerner concedes that physicians may learn to accept the harmless ones, as long as the patient doesn't abandon the traditional course of therapy. "We have tended in the past to be black and white about unproven methods," he said. "We need to make gradations." The American Cancer Society, for example, is developing a grading system in which "big-league quackery" will be distinguished from more harmless treatments, he said. "We have to draw lines in letting people do some of those simple, innocent things, even though they're anti-scientific. I don't condone them. I don't want to fight them."

The people who are most attracted to alternative remedies fit a rather confounding profile. Medical professionals always thought "ill-educated, naive, and simple-minded people" would be attracted to quackery, Lerner said. On the contrary, it's the affluent and educated who are most likely to seek alternative treatments. These patients are more adventuresome and interested in self-healing, Lerner said, and they don't follow the gospel according to the doctor.

Lerner understands that patients more often seek alternatives because of a need to feel in control. "People feel they're doing something for themselves," he said. But he also sees a cynical force at work, one rooted in a distrust of the establishment that grew out of political events of the '70s, particularly Watergate. "This country turned itself on its ear. It became highly distrustful of the establishment," he said. That distrust of politicians extended to other groups as well, including doctors. Says Lerner: "People in large numbers began to distrust science."



Sometimes that distrust of science can be carried to extremes. Kris McLain is one who has given up, for the most part, on traditional medicine and embraces unorthodox heal-

ing treatments. Unlike Kummer, who uses a self-healing program as an adjunct to one prescribed by his physician, McLain relies primarily on self-healing. She takes a dim view of Western medicine.

"A lot of what Western medicine does is poison what's ailing," said McLain, who at 32 is the mother of two young children and a wiry, vigorous woman who teaches five aerobics classes a week. "A lot of what I do is intuitive," she said. For instance, she believes medicines provide "a quick fix that is hard on the body."

McLain is a bright woman, yet she has difficulty articulating the reasoning behind some of the medical decisions she has made. Some of those decisions are extreme, such as her refusal to have her children immunized. She admits to fears that her children could get polio, for example, but she also worries about an adverse reaction to the vaccine. "I read both sides of it," she said, "but I just couldn't do it."

It is important to note that McLain has never had



any bad experiences with physicians. In fact, she has always been healthy and has had very little contact with them at all. McLain does have a family doctor, whom she sees only in emergencies. (She has discussed her beliefs with him, and while he does not agree with her, neither does he fight her.) Otherwise, for colds, fevers, ear infections, bumps, bruises, and other ailments, McLain uses a variety of homeopathic medicines that she self-prescribes or takes on the advice of the owner of a neighborhood herb store.

Her attitude toward medicine simply evolved, she said. "It's just the way I've drifted." She is supported by a network of people who share homeopathic remedies when something goes wrong. And she is comforted by the book, *How to Raise a Healthy Child in Spite of Your Doctor*, written by Robert S. Mendelsohn, M.D., a pediatrician who encourages parents to "avoid your doctor whenever you can."

McLain also visits a chiropractor for medical problems (not musculoskeletal problems). When her daughter was grinding her teeth, she went to the chiropractor, and when her son had a lingering cold, she brought him, too. McLain believes that the chiropractor cured the problems. She admits that the chiropractor failed to cure her daughter's ear infection, and that, eventually, when pus started oozing from the ear, she turned to a medical doctor for help. But she insists that a more experienced chiropractor might have found an appropriate remedy.

Like Kummer, McLain is attracted to the idea of positive thinking and uses visualization techniques that she believes have curative powers. She claims a cyst on her wrist disappeared after she repeatedly said an affirmation: "The movies of my mind are wonderful because I choose to make them so." Visualization, she says, "is a way to suggest to your subconscious and all

"If patients begin to abandon the unpleasant medical therapies, then we've done them a disservice."

—William Jarvis

## DOCTOR'S ORDERS

### *How to Help Patients Help Themselves*

By Miriam K. Feldman

**D**octor's orders. More and more patients are refusing to follow them. Even the patients who do obey are also writing some orders of their own. Nobody knows how many people go off on their own for unorthodox treatment, but the American Cancer Society is so concerned about the phenomenon that it has conducted a survey to find out. Meanwhile, the Food and Drug Administration estimates that several billion dollars are spent every year on worthless tests and treatments.

This poses a number of challenges to physicians, who worry that patients lose valuable time, and often money, pursuing quack treatments. First, physicians must find ways to convince patients to continue medical treatment. And second, physicians may have to convince themselves that sometimes it's OK for a patient to pursue unorthodox remedies, as long as the traditional treatment is not abandoned.

Irving Lerner, M.D., a St. Paul oncologist in private practice and an authority on quackery, is outspoken in his opposition to alternative remedies. In the mid-'70s he was involved in efforts that prevented the legalization of laetrile in Minnesota, and today he

takes time out of his busy practice schedule to speak publicly about quack cancer cures.

Yet Lerner understands that often the patient who goes off independently for a questionable treatment is simply trying to take some control of the situation.

"I think traditional medicine has a problem that we've been trained to not enable people to do it themselves," he said. "How do you enable a patient to feel empowered with a disease that's overwhelming? How you respect a patient's wish to feel in control and, on the other hand, treat him is a dilemma. I want [the patient] to be more in control, but if a patient needs to take platinum, he's going to be out of control," Lerner said. Yet Lerner and others acknowledge that physicians must try harder to give patients a sense of empowerment—a feeling that they are doing something for their own health.

"We have to find ways to instruct and encourage patients to be activist in scientific ways in dealing with their health," Lerner said. He suggests that physicians encourage patients to maintain an upbeat attitude about treatment. Patients who want to be activists might be advised to do so through nutrition, physical

levels what you want to make take place. You make a movie in your mind."

McLain's thinking is typical of many who seek alternatives to traditional medicine. She talks about the relationship between the mind and the body (something Kummer emphasizes, too). "My point of view about medicine and health is that it's a whole thing," she said. "When I want to treat something, I want to treat the emotional and mental, too."

The notion of the mind-body connection is rhetoric, insists William Jarvis. "The modern medical model says the mind is the body," he said.

There are any number of systems around today that are nothing more than mind-body dichotomies, from chiropractic, which manipulates the spine but insists it is treating the life force, to Chinese acupuncture, Jarvis said. The notion of a mind-body connection actually goes back to the Greeks, who believed in an ethereal spirit that inhabits the body, he explained. "I call that spook medicine," he said.

"What medicine calls the mind is the functioning brain, and that includes the central nervous system, and even the skin is part of it. That's why touch is so impor-

tant—the laying on of hands. It has a soothing, relaxing element to it. . . . So it's not surprising that a lot of these treatments involve massage," Jarvis said. This mind-body rhetoric is appealing, he said, because it taps into the unmet psychological needs of the patient.

Those unmet needs typically translate into a feeling of abandonment by the traditional medical community. People with AIDS and its bleak prognosis undoubtedly feel abandoned. But even healthy people, like McLain, have felt it, too. McLain often feels let down by physicians. She said it's hard to get a straight answer from them, and often, when they are reluctant to treat a condition, such as her daughter's teeth grinding, a chiropractor or homeopathist will not hesitate to offer treatment. "Often when I've gone to doctors about specific problems," she said, "they don't have the answer. They don't seem to have the answers for me."

**C**arol Jessop, M.D., is an internist in El Cerrito, California, a town near Berkeley. She believes many patients for whom traditional medicine has no answers feel abandoned by the system. Jessop is acutely aware of this phenomenon because of the nature

## "How do you enable a patient to feel empowered with a disease that's overwhelming?"

—Irving Lerner

activity, and emotional well-being. Those are "powerful tools in enabling the patient to get through the treatment experience," Lerner said, "but they're not primary ways of treating the disease."

"Listen to what the patient is saying and allow the patient to discuss his feelings and his wishes with you," advised Hannan Rosenstein, M.D., a Minneapolis family physician who sees about 20 percent of the state's AIDS cases. Rosenstein bristles at the mention of empowerment. "I hate the term," he said. "A lot of this is jargon." And he is bothered by the purveyors of questionable treatments who tell people that what physicians do is no good. Nevertheless, Rosenstein is willing to give his patients some leeway in the use of alternative treatments. "If what the patient wants is not detrimental to his health, nor conflicting with what the physician is recommending, go ahead with it. Even if you don't agree with it."

Scott Strickland, M.D., follows that advice. "The only times I discourage people from doing something is when it's harmful or seems to be unreasonably expensive," said Strickland, an internist at Park Nicollet Medical Center who also treats a lot of people with

AIDS. "I don't feel I need to keep people inside the system, if there's something outside that makes them feel better," he said. But Strickland's openness to alternatives assumes the patient is also following doctor's orders. The treatment involves "combining everything together," he said. "What I do is one part of the puzzle."

Empowerment can go the other way, too. Bill Kummer of Minneapolis suggests that doctors can empower patients by doing something for themselves. He would like doctors to give themselves permission to show their doubts and frustrations. Kummer has thought a lot about the doctor-patient relationship ever since he was plunged into the medical system two years ago with a diagnosis of AIDS. Doctors, like patients, feel powerless at times, Kummer says.

"Many infectious disease doctors felt they would be working largely with people they could save," he said. "Then along came AIDS, and they started losing patients by the thousands. Sometimes I think there's a lot of pressure on physicians to know, to have that quick reply. It's OK for them to say, 'We're not real clear about this.'"

MM





of her practice. Many of her patients suffer from chronic fatigue syndrome (CFS), a condition that has baffled the medical community and has divided it over the question of whether the condition even exists. Because of the mystery surrounding CFS, many patients have been forced to endure a debilitating and long-lasting illness with little or no help from modern medicine.

Jessop has more to offer her patients now than she did three or four years ago, but not everyone with CFS responds to treatment. Those who don't respond look elsewhere for alternatives, and she has not dissuaded them. "I generally don't send them to a homeopathist," she said, "because I think I can treat them better." But she remains open-minded about alternative approaches. "When the traditional primary care physician or nurse practitioner has no more recommendations to make, people might go elsewhere," she said. "There are many ways to heal."

Jessop acknowledges that her attitude is not uncommon in California, where alternative therapies enjoy a widespread acceptance. But alternatives have reached the Midwest, too. For the past few years, Milton L. Bullock, M.D., has been conducting research to test whether acupuncture can reduce the cravings for alcohol in chronic, recidivist alcoholics. Bullock, who is director of the division of clinical pharmacology and toxicology at the Hennepin County Medical Center in Minneapolis and director of the county's chemical dependency division, started out as a skeptic about acupuncture, but he is now convinced that, in combination with Western medicine, it can be a powerful tool.

Bullock's are the first controlled studies of the use of acupuncture to treat substances abusers, and they suggest that the treatment has promise. "I see a place for it," he said, "but I feel very strongly that any place it achieves needs to be achieved by research. I think research will show that acupuncture can be significant in a number of areas, particularly where Western medicine does not have a good answer. . . but it needs to be proved by research, so we don't just add on another modality."

Acupuncture has a long way to go before it becomes a mainstream modality, however. "There is a great deal of skepticism—sometimes worse—hostility and derision," said Bullock. But he adds that once his colleagues consider the data, "the vast majority are fair-minded individuals who say, 'Maybe there's something here that needs to be investigated.'" This reaction to acupuncture is indicative of the broad range of alternative treatments, some of which are clearly pure quackery and have absolutely no scientific basis, and others like acupuncture, which seem to hold medical promise, even when the scientific mechanisms aren't completely understood.

Scott Strickland, M.D., refers many of his patients to an acupuncturist. Strickland, an internist at Park Nicollet Medical Center, has a large case load of patients with AIDS. Acupuncture can effectively relieve symptoms such as pain and nausea for many of his

patients, he said.

"AIDS has made us very aware of the fact that alternatives to Western medicine are important to people. We don't have a lot to offer. Western medicine does not have all the answers," Strickland said.

Chiropractic is another modality that has slowly gained at least grudging acceptance among some physicians. There has never been any research to prove that chiropractic is an effective treatment, yet a growing number of physicians are willing to accept its efficacy on the basis of testimonials.

"Chiropractic per se is nonsense," said Jarvis, who wrote his Ph.D. dissertation on the subject, "but manual therapy of the spine has usefulness for functional back disorder, so you have to differentiate." And that is what many physicians are doing.

Group Health, Inc., the oldest HMO in the state, has been providing chiropractic services for about the past five years, ever since the state mandated the services be covered for AFDC patients, said Paul Brat, M.D., Group Health's medical director. Initially, there was some reluctance among Group Health physicians to accept chiropractic, Brat said. But the number of referrals has risen as Group Health's primary care physicians have become more comfortable with it.

Allen Fongemie, M.D., head of the sports medicine division at Group Health, believes chiropractic is very useful in some situations. "I don't quite understand how it all happens," he admits. But it does have an effect for many patients—specifically the ones with low-back pain, neck pain, or upper-back pain. He recalls patients who have received temporary relief from pills, but never a cure. Chiropractic often provides relief without the pills, he said.

Group Health has strict criteria for referral to a chiropractor. One, the patient cannot self-refer, and two, the referral can be only for musculoskeletal problems. While some physicians at Group Health refuse to refer to chiropractors, most do.

"There is no denying they are very helpful for a lot of patients," Fongemie said. "Many of us think, if it works, why not use it?"

That's really what a lot of people who seek alternative therapies are saying: If it works, let me try it. Strickland knows that many of his patients with AIDS feel that way. Strickland, who is frustrated by not having a lot to offer his patients, understands that sometimes the most he can offer is the go-ahead to pursue an alternative, provided it is neither harmful nor expensive. "What's most important is not what it does, but that it's empowering them to do something for themselves," he said. "As long as it's not harming them, it's OK."

Empowerment is a very important concept to a lot

of people who seek alternatives. Bill Kummer talks about it a lot, especially in conjunction with something he calls "co-doctoring,"—a term he says is popular at *PWAlive*. "We really rely on our physicians a lot," he said. But people with AIDS have learned to rely on themselves, too, because in many cases they understand their disease better than their physicians do. Co-doctoring, he said, requires that the physician be sensitive and open and willing to discuss treatment options that the patient thinks would be helpful.

"I may have stumbled on things in my own clumsy attempt to feel better," said Kummer. "If it's not going

to hurt, [if it's] not toxic, there's an important thing that a physician can do in affirming that. It would help if they would say something like, 'It sounds like you should go with that.'"

What Kummer is really talking about is the doctor-patient relationship, something William Jarvis has thought a lot about, too. The inability to forge strong doctor-patient relationships is a downfall of modern medicine, Jarvis says. "That is an area where modern medicine has failed. It's not a defect in the people who practice medicine. Overspecialization has caused this," Jarvis said.

"The physician is concerned with

either one part of the body, or a disease entity, and hasn't developed a relationship with the patient. That's the problem they [people who seek alternatives] are talking about.

"We can learn from quacks that the relationship is the most important thing. Everything else is secondary," said Jarvis, who points out that chiropractic management schools teach "how to build relationships with patients and make them love you and keep them coming back, which is the name of the game with chiropractic." By establishing a sound relationship with the patient, the chiropractor knows that he can get the patient to do almost anything, Jarvis said. In fact, some of the chiropractic management techniques for building relationships are being used in a medical school training program at Loma Linda University, where Jarvis teaches.

A strong doctor-patient relationship is important, but St. Paul oncologist Lerner knows from his experience with cancer patients that even the soundest relationship may have trouble withstanding the lure of quacks. It's much easier for the quack to assuage the patient's fear, Lerner said. "That's where the quack has the advantage, because he doesn't have to be honest and deal with reality, and he can identify that the patient wants to be in control."

Physicians, of course, don't have to abandon reality to help their patients help themselves. **MM**

*Miriam Feldman is a Minneapolis free-lance writer and a frequent contributor to Minnesota Medicine.*

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—Irving Lerner



# *Pediatric Cardiac Care Consortium*

## Demonstrated Value of a Physician-directed Quality Assessment System

*James H. Moller, M.D.; Catherine Borbas, M.P.H.; Donald J. Hagler, M.D.; Carolyn J. McKay, M.D., M.P.H.; and Frederic M. Stone, M.D.*

### ABSTRACT

A quality assessment system for analyzing the results of inpatient care of children with cardiac abnormalities is described. Three Minnesota institutions (the Mayo Clinic, Minneapolis Children's Medical Center, and the University of Minnesota) participate with 15 other similar centers elsewhere in the United States in this system. Patient data are analyzed and adjusted for case mix to allow for differences in patient populations and referral patterns. The statistical methods used are shown for two conditions: ventricular septal defect and aortic valvotomy. Data presented show reduction in length of stay for cardiac catheterization. This change occurred as physicians annually reviewed and discussed the data and, as a result, instituted changes. This physician-directed program seeks improvement in patient care through physician education.

In Minnesota, quality of medical care has been the subject of much discussion. Through peer review activities of medical staffs and via the publication of scientific articles related to outcome, physicians have long assumed the responsibility of monitoring and assessing quality of care. Currently, however, demands have arisen for more quantitative assessments of outcome. Often these demands have resulted in the creation and imposition of quality monitoring systems in which physicians have had little involvement with their creation and application or with the analysis of results. Such systems are in sharp contrast to traditional peer review systems.

In this report, we describe a clinical review system, developed and administered by physicians, that quantitatively and statistically analyzes outcome data; preserves patient, physician, and hospital confidentiality; and seeks improvement in care through physician education. While this review system concerns a particular subspecialty—pediatric cardiology—its principles, structure, and format could be applied to other disciplines and diseases.

### *History of the Project*

In 1979, pediatric cardiologists from the Mayo Clinic and the University of Minnesota met with Upper Midwest state and regional directors of the federal Crippled Children's program and the Maternal and Child Health Bureau to expand the scope of the existing regional Crippled Children's cardiac program. The cardiologists felt a need to assess the character and outcome of their cardiac programs for children because of the high cost of cardiac care, particularly as compared with the cost of treating other diseases in children.

As a result of these meetings, a non-profit organization, the Northern Great Plains Regional Cardiac Program, was formed with the primary purpose of acquiring and analyzing data related to cardiac catheterization, cardiac surgery, and cardiac death in the Upper Midwest. Responding to an invitation to participate, the initial centers were the Mayo Clinic, Minneapolis Children's Medical Center, the University of Iowa Hospitals and Clinics, the University of Minnesota Hospital and Clinic, and the University of Nebraska Medical Center. Since 1983, the program has expanded to include all centers providing inpatient pediatric cardiac care in Minnesota, Iowa, Nebraska, and North Dakota and includes 11 centers in 10 other states. To reflect its major concerns, the name of the program recently has been changed to the Pediatric Cardiac Care Consortium (PCCC).

### *Methods*

For each child undergoing a cardiac catheterization or a cardiac operation or who dies with a cardiac condition, a data collection form containing basic demographic data is completed at the participating pediatric cardiac center. This form and the related catheterization, surgical, or autopsy report is sent to a central office. The registry office extracts data from the reports and codes the cardiac diagnoses and operations. The data from the forms and reports are entered into a computer. The central office contacts the medical records department of each hospital annually to verify the number of cardiac catheterizations, cardiac operations, and cardiac deaths in children. If the central office has received information for less than 90% of the procedures performed, further analysis of

data is not performed until the hospital submits a complete data set.

An individual report is prepared annually for each participating pediatric cardiac center with a detailed analysis of its patient population compared with the combined population and experiences of the participating centers. Statistical analysis is performed to identify areas of significant difference. Each center's report is sent to a pediatric cardiologist selected by that center to represent it. Centers cannot obtain information regarding other centers, and in no report can an individual pediatric cardiac center discover another center's results. Annually, a group comprising a pediatric cardiologist from each of the participating centers meets to discuss the data, make recommendations based on analysis of the data, and propose new projects.

### *Adjusting for Case Mix*

Since the profile of patients at each center varies because of referral patterns and patient population, it was necessary to adjust for case mix in order to perform meaningful statistical analysis of operative outcome. (For a surgical procedure to be analyzed, more than 100 surgical procedures had to have been performed and at least 10 deaths had to have occurred in the total experience of the program.) The cardiologists identified eight risk factors as being important in case mix: weight of patient, presence and severity of extracardial anomaly, number of secondary diagnoses, severity of secondary diagnoses, previous cardiac operations, severity of cardiac conditions, and surgical hemoglobin. Age is taken into account by examining infants (less than one year of age) and children (one year to just less than 21 years of age) separately. Because death is attributed to the last surgery performed, only patients who were hospitalized for 30 days or less following surgery were included in the analysis. It was deemed inappropriate to ascribe mortality to an operation if the patient was hospitalized for more than 30 days.

By a statistical method concerned with probability of death, these eight factors, with separate analysis for

age, are used to determine the probability of death for the patients undergoing operation at each center. Using this statistical method, the expected mortality for each of 37 operations or group of operations can be calculated for each center. The mortality observed for each of the operations or groups of operations at the cardiac centers can then be compared with the expected mortality and the standardized difference between the two determined. The standardized differences are the differences between the observed and expected number of deaths standardized to allow for comparison across centers.

The group of pediatric cardiologists has set the statistical boundaries of plus or minus two standardized differences for mortality for each of the 37 operations. This means that hospitals with a standardized difference of less than or equal to -2 are noted as performing much better than their peers. Hospitals with standardized differences greater than or equal to +2 are noted as having unexplained high mortality rates for the given surgical procedure. In these cases, it is recommended that the cardiac center review in detail the medical records of the patients undergoing these specific operations and seek consultation from either the principal investigator of the project or others.

### *Results*

Data have been obtained for 16,187 children with cardiac disease or anomalies from 1982 through 1988. Data were available for 13,478 cardiac operations and for 1,118 deaths occurring within 30 days of surgery. Of the study population, 6,015 patients were less than one year of age at the time of cardiac catheterization or operation.

While a variety of data could be presented to reflect the usefulness of the study, only two types of data are described here to illustrate the quality of care assessment aspects of the program. The first demonstrates the use of risk adjustment, and the second shows the application of the data to reduce hospitalized days for cardiac catheterization.

### *Risk Adjustment*

The analysis of cardiac operations for closure of a ventricular septal defect and for aortic valvotomy are presented to show the method and results of case mix adjustment. Aortic valvotomy was chosen because of the bimodal age distribution at time of operation.

**Ventricular Septal Defect:** From 1982 through 1988, 1,084 infants and children underwent operative closure of a ventricular septal defect.

Of the 1,084 patients, 481 were infants. The mean age of the infants at operation was 189.5 days, and mean weight was 5.2 kg (range 1.9 kg to 9.9 kg). The statistically significant factors affecting mortality were cardiac severity, number and severity of secondary cardiac diagnoses, and weight at the time of surgery. Fifty of the 481 infants died postoperatively, yielding a 10.4% unadjusted mortality rate and a 9% adjusted rate (Table 1). For infants (Figure 1a), centers C, E, G, K, and O each have a mortality rate exceeding the adjusted mean mortality rate of 9%. The number of observed deaths is compared with the number of expected deaths (Figure 1b). Centers

Table 1

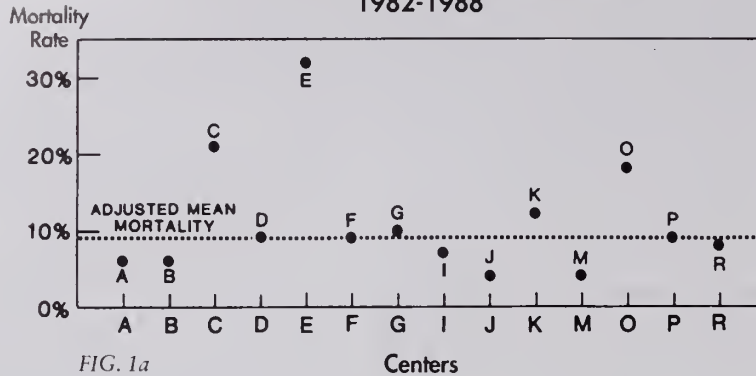
#### *All VSD surgeries: Infants only\**

| Characteristics      | All Centers  |
|----------------------|--------------|
| Number of procedures | 481          |
| Mortality            |              |
| unadjusted           | 10.4%        |
| adjusted             | 9.0%         |
| Surgical age         |              |
| mean                 | 189.49 days  |
| range                | 3-363 days   |
| Surgical weight      |              |
| mean                 | 5.17 kg      |
| range                | 1.90-9.90 kg |

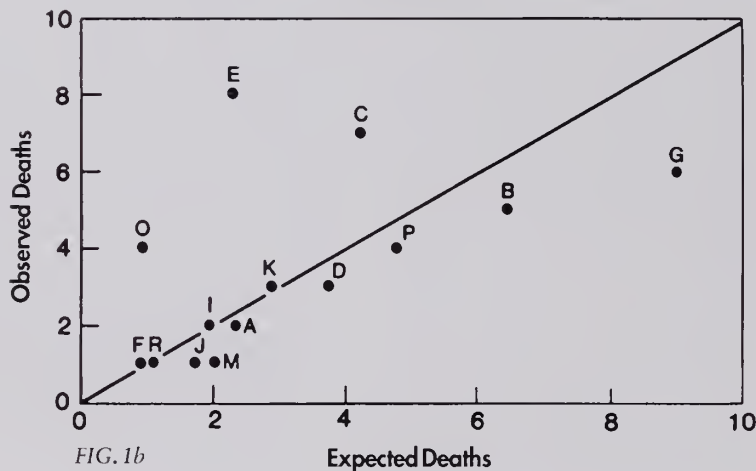
\*Significant factors: Cardiac severity, number of secondary cardiac diagnoses, maximum severity of secondary diagnoses, and surgical weight.



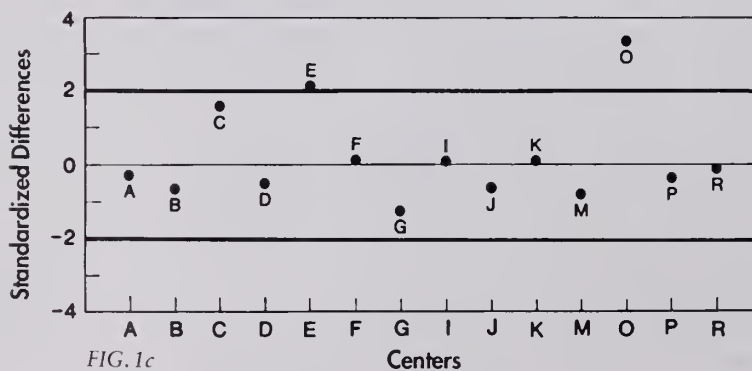
### Closure of Ventricular Septal Defect—Infants 1982-1988



### Closure of Ventricular Septal Defect—Infants 1982-1988



### Closure of Ventricular Septal Defect—Infants 1982-1988



located below the line of identity had fewer deaths than expected, and those above had more. For instance, center E had eight deaths, while only 2.29 deaths were expected for its case mix. Centers E and O exceeded +2 standardized differences (Figure 1c). Note that center C had an unadjusted mortality rate exceeding 20%, and center O had a mortality rate less than 20%; yet, because of the case mix, center C is within the acceptable range of mortality, while center O is above the accepted range.

Of the 1,084 patients, 603 were children. They ranged in age from 1.01 to 20.97 years (mean = 4.8 years) and weighed from 4.3 kg to 63.0 kg (mean = 17 kg). The number and severity of associated cardiac anomalies were the significant risk factors. Twenty-one of the 603 children died, yielding an unadjusted mortality rate of 3.5% and an adjusted mortality rate of 3% (Table 2). Centers A, D, E, and K each had mortality rates exceeding the adjusted mean mortality rate of 3% (Figure 2a). Four centers had a greater number of observed than expected deaths (Figure 2b). After statistical adjustment (Figure 2c) none of the centers had a standardized difference over +2, although three were

Table 2

#### All VSD surgeries: Children only

| Characteristics      | All Centers      |
|----------------------|------------------|
| Number of procedures | 603              |
| Mortality            |                  |
| unadjusted           | 3.5%             |
| adjusted             | 3.0%             |
| Surgical age         |                  |
| mean                 | 4.8 years        |
| range                | 1.01-20.97 years |
| Surgical weight      |                  |
| mean                 | 17.0 kg          |
| range                | 4.3-63.0 kg      |

Significant factors: number of secondary cardiac diagnoses and maximum severity of secondary diagnoses.

FIGURE 1 - Ventricular septal defect. Results of surgical closure at 14 pediatric cardiac care centers; 481 operations in infants.  
a. Unadjusted mortality rate for each center (A-R). Mean mortality rate is 9.0%.

b. Comparison between observed and statistically determined expected mortality rate for each center.

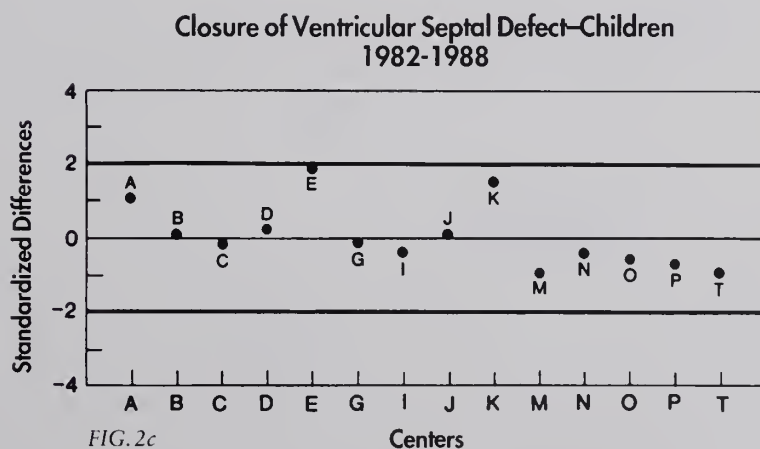
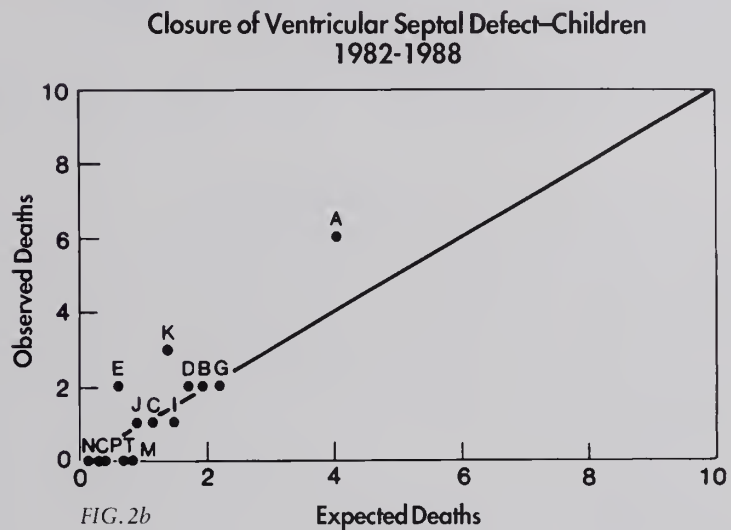
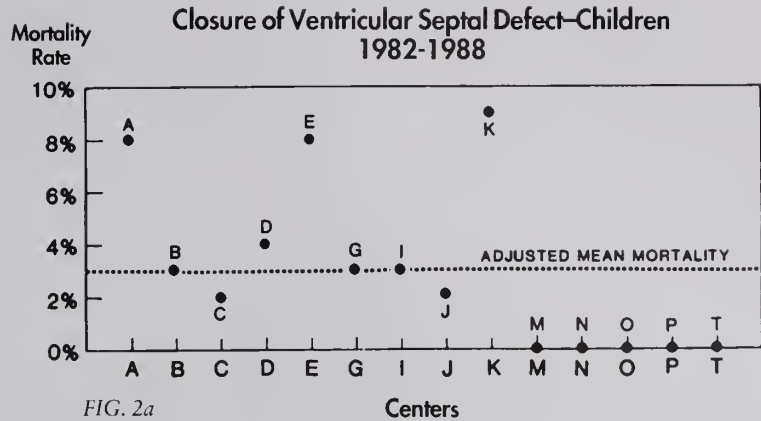
c. Following adjustment of mortality rates, each center displayed in relation to standardized difference from the mean.

between +1 and +2.

The separate analysis of infants and children for ventricular septal defect indicates that some centers may have problems with one age group and not the other.

**Aortic Valvotomy:** Of the 233 patients undergoing aortic valvotomy, 29 died, yielding a 12.5% mortality. The mean age was 5.6 years, but 44.6% of patients were less than one year old at the time of operation, and another 40.4% were more than 5 years old at operation (Table 3). Seven centers (C, D, E, I, J, O, and P) were above the mean mortality (Figure 3a), with mortalities of 13%, 27%, 36%, 14%, 25%, 13%, and 18%, respectively. When the observed versus the expected mortalities were compared, six centers still had more than the expected number of deaths (Figure 3b). However, Figure 3c indicates that of the remaining six centers, five (D, E, I, O, and P) were within +1 standardized difference of the mean, while only center J was above the +2 standardized difference and distinctly different from the others.

The study found age and weight at birth significantly affected mortality rates following aortic valvotomy in smaller children. When age and weight are considered (i.e., by adjusting for case mix), and operative mortality reevaluated, a different perspective is obtained. Only one center (J) had excessive mortality, even though two other centers (D and E) had an increased overall



**FIGURE 2 - Ventricular septal defect. Results of surgical closure of 14 pediatric cardiac care centers; 603 operations in children.**  
*a.* Unadjusted mortality rate for each center (A-R). Mean mortality rate is 3.0%.  
*b.* Comparison between observed and statistically determined expected mortality rate for each center.  
*c.* Following adjustment of mortality rates, each center displayed in relation to standardized difference from the mean.

Table 3

*All valvotomy surgeries*

| Characteristics                                        | All Centers |
|--------------------------------------------------------|-------------|
| Number of procedures                                   | 233         |
| Mortality                                              |             |
| unadjusted                                             | 12.5%       |
| adjusted                                               | 12.0%       |
| Surgical age, mean                                     | 5.6 years   |
| Surgical weight, mean                                  | 20.3 kg     |
| Significant factors: surgical age and surgical weight. |             |



(unadjusted) mortality rate. Presumably, the bulk of patients operated on at centers D and E were younger, and those at center J were older.

### Hospital Utilization

The program collects information regarding length of hospital stay that can be used to evaluate certain aspects of care. In 1984, 1,448 children underwent cardiac catheterization, but without a cardiac operation being performed during the same hospitalization. Fifty-two percent of the patients were hospitalized for two days for the catheterization (Figure 4); in 17% it was performed on an ambulatory basis, and in another 10% the child was hospitalized for one day. The cardiologists reviewed the data at their annual meeting in

1985 and discussed the duration of hospitalization and the use of outpatient (ambulatory) cardiac catheterization. Subsequently, a change in the pattern of hospital use has occurred, resulting in a different distribution in 1988, when 23% of the children underwent the procedure as outpatients, 28% were hospitalized for only one day, and 30% were hospitalized for two days. In each of the years studied, from 19% to 22% of the children were hospitalized for more than two days, and these patients usually had a cardiomyopathy or a problem requiring electrophysiologic study.

### Discussion

Providing quality medical care has long been a goal of physicians. While

quality medical care has not been precisely defined, physicians generally have had a belief about what represents quality and have defined it in terms of the standard of practice within the community. Physicians have assumed the responsibility of maintaining and monitoring the care being delivered to patients. Indeed, society has given them that responsibility through medical licensure boards and through various medical staff committees.

### Factors Affecting Quality Assessment

As health care costs have continued to rise and account for an ever-greater proportion of our nation's expenses, those who pay for health care have increasingly sought guarantees that

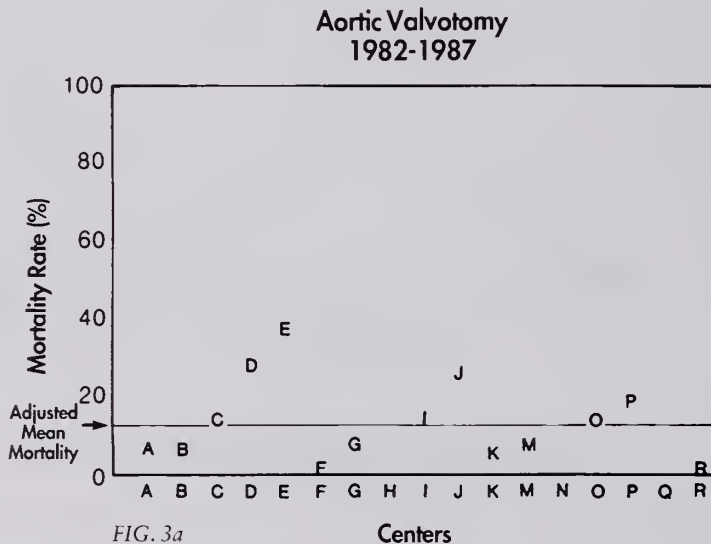
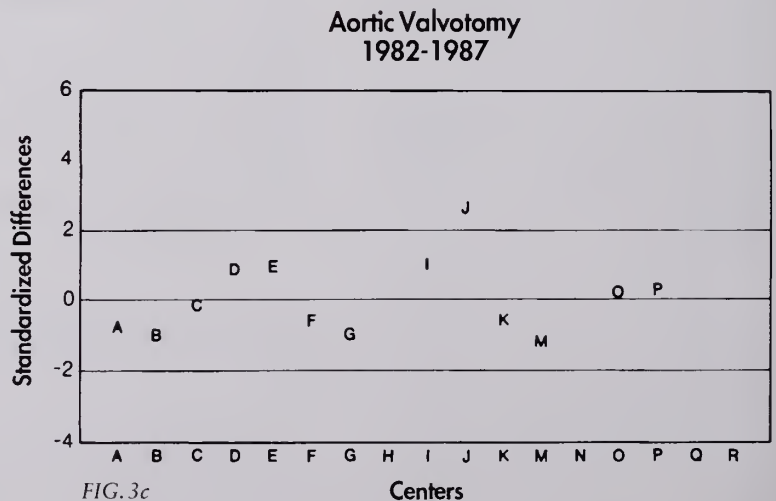
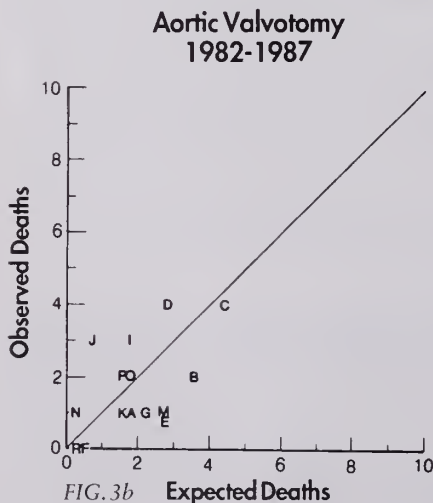


FIGURE 3 - Aortic valvotomy. Results of 232 operations at 14 pediatric cardiac centers. Data from center Q not displayed because the number of aortic valvotomies performed is inadequate for statistical analysis.

a. Unadjusted mortality rate for centers A-T, except Q. Mean mortality rate is 12.5%.

b. Comparison between observed and statistically determined expected mortality rate for each center, except Q.

c. Following adjustment of mortality rates, each center displayed in relation to standardized difference from the mean.



they are paying for quality care. At times, *quality* of health care has really meant *quantity* of health care, because such parameters as utilization, length of stay, and costs were the ones being evaluated. While these indicators may partially reflect quality, they are only some of the many measures of quality. Perhaps this substitution of quantity indicators for quality indicators reflects the general problem of defining quality, let alone the difficulties in defining measurable results.

Several systems attempt to measure quality.<sup>1,2</sup> The Health Care Financing Administration's report of hospital mortality is a notable example. HCFA's report, which ranks hospitals according to their mortality rates, reveals the importance of incorporating three basic principles into any outcomes assessment: 1) the outcome measure must be meaningful, 2) comparable cases or groups of cases must be analyzed, and 3) practicing physicians need to be involved in developing and managing any program. Physician involvement, with specialist representation, is necessary, because physicians have the knowledge of the disease, its current management, the variations in patient characteristics, and important measures of outcome. Furthermore, physician involvement can promote physician acceptance of any outside quality assurance program.

### The PCCC Model

The Pediatric Cardiac Care Consortium represents a model that incorporates several of these important aspects. As a subspecialty, pediatric cardiology has long been interested in developing and maintaining its standards and was the first pediatric subspecialty to have its own board certification process. It developed organizations within both the American Academy of Pediatrics and the American Heart Association. These organizations each developed standard statements regarding pediatric cardiac centers.<sup>3</sup> Recently, the American Academy of Pediatrics Section of Cardiology updated its standards statement to include a recommendation that pediatric cardiac care centers should have periodic site review

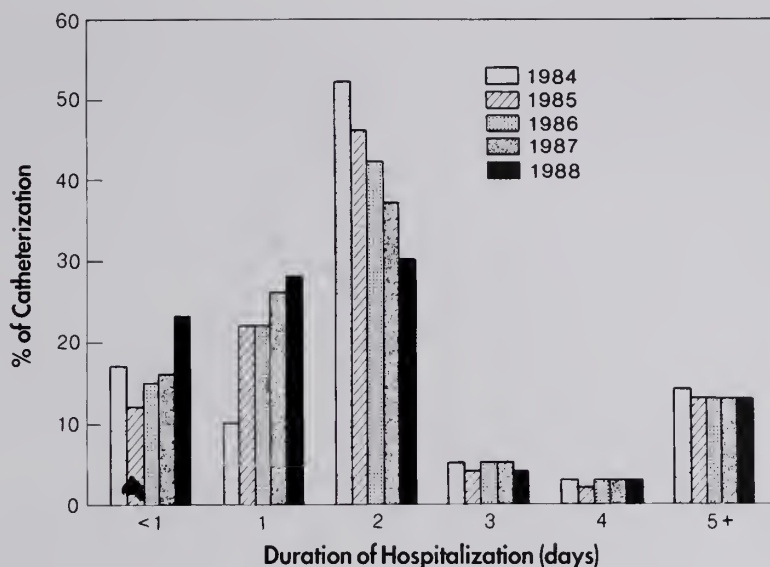


FIGURE 4 - Cardiac catheterization length of stay.

of their programs or participate in a multicenter data registry.

Thus, PCCC's development was a natural consequence of the history of this subspecialty. It was developed as a cooperative, voluntary program to seek change through education and to include physicians as major participants. This is in contrast to some involuntary programs, in which physicians are minor participants and whereby change is brought about through reimbursement mechanisms.

Not only were physicians involved in the establishment of the PCCC program, but they currently meet twice a year to review the program and meet annually as a group to review the data. At each meeting the participating physicians discuss modifications or studies they would like to see carried out. A key to the program's success has been the strong clinical leadership of the program by a respected pediatric cardiologist.

**Benefits to Individual Centers:** Individual centers use the data in three ways. First, because each center receives its analysis for 37 operations or group of operations, its physicians can identify procedures for which the mortality rate is too high. Thus, the centers can concentrate their reviews on specific procedures rather than performing randomized reviews of a variety of operations. Second, if there is excessive mortality, the principal investigator is invited to the center to

meet with cardiologists to discuss the particular cases, help identify reasons for the excess, and work out mechanisms for improvement. Third, since data are collected annually, results of corrective action can be assessed.

The program continues to expand to include voluntary participation of additional centers. Several reasons have been given for joining: 1) the data are useful, 2) the cost is low, 3) the potential exists for answering important questions regarding cardiac disease in childhood, and 4) physicians want to evaluate their performance. No center has been forced to join in order to meet a specific requirement.

In the future, we plan to explore in greater detail the centers that had a better-than-expected procedural outcomes. This analysis will help identify factors associated with an improved outcome and methods that could be used by other centers. In addition, we will analyze length of stay at the centers, using it as a surrogate measure for morbidity until we have data regarding specific postoperative complications. The results of both analyses will be reviewed and analyzed by the group of participating cardiologists.

### Conclusion

This paper presents the results of the statistical analysis of two cardiac op-



erations, ventricular septal defect and aortic stenosis, performed on children in 18 cardiac centers in the Upper Midwest. The results, adjusted for case mix, are an important means for the cardiologists at each center to evaluate their data and their performance. They feel comfortable with the method because they were involved throughout the process, and they understand its rationale and the factors that went into the analysis. The quality assessment system described may be of particular value because its principles, structure, and format could be applied to other disciplines and diseases. **MM**

*James Moller is a professor of pediatrics at the University of Minnesota in Minneapolis, Minnesota, and principal investigator, Pediatric Cardiac Care Consortium.*

*Catherine Borbas is executive director of the Healthcare Education and Research Foundation, Inc., in St. Paul, Minnesota, and program director, Pediatric Cardiac Care Consortium.*

*Donald Hagler is a consultant in the Section of Pediatric Cardiology, Mayo Clinic, and a professor of pediatrics, Mayo Medical School, Rochester, Minnesota.*

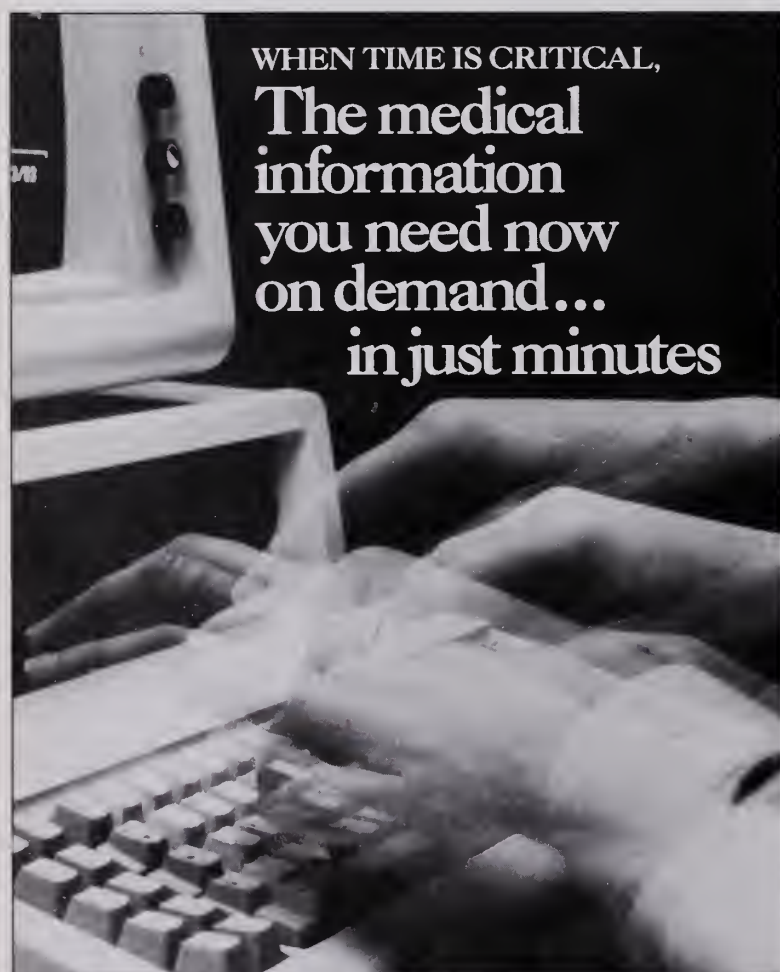
*Carolyn McKay is director of Maternal and Child Health, Minnesota Department of Health, Minneapolis, Minnesota.*

*Frederic Stone is a clinical associate professor in the department of pediatrics, University of Minnesota, Minneapolis, and a pediatric cardiologist at the Minneapolis Children's Medical Center, Minneapolis, Minnesota.*

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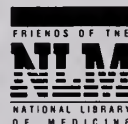


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# Managing Pain and Suffering in the Dying Patient

Minnesota Medical Association and Hennepin County Medical Society

**Editor's Note:** A 67-year-old Edina woman and a 29-year-old St. Paul man who were diagnosed as terminally ill by five physicians in separate institutions received large doses of morphine prescribed by their physicians to alleviate their suffering. After the two died—the man March 22, 1989, at the University of Minnesota Hospital and the woman April 9, 1989, at Fairview Southdale Hospital—the Hennepin County attorney's office and the county medical examiner investigated the two deaths.

Agreeing with Medical Examiner Dr. Garry Peterson's conclusions that the deaths were caused by the morphine, not the underlying diseases, on April 24 County Attorney Tom Johnson called the deaths homicides but announced he would not prosecute the two Fairview Southdale and three University of Minnesota physicians involved. "There is no likelihood of conviction," Johnson said.

As a result of these investigations, the county attorney and medical examiner issued a joint report urging hospitals and other medical institutions to adopt guidelines for administering large doses of pain-killers to terminally ill patients and to keep detailed records when such drugs are administered. Although the county attorney and medical examiner have no authority to enforce their recommendations, their report said medical centers that establish and follow such guidelines probably won't face a criminal investigation if physicians' actions are questioned in the future.

The Minnesota Medical Association disputes the medical examiner's and county attorney's conclusions and was outraged by their comments. Before these findings were announced, the Hennepin County Medical Society in March had al-

ready drafted and widely distributed its *Position Paper on Management of Pain and Suffering in the Dying Patient*, which we reprint here as one example of physician-developed

protocols on this subject. Prefacing the position paper is the Minnesota Medical Association's response to the county attorney and medical examiner's report.

## Response to the Joint Guidelines of the Hennepin County Attorney and the Hennepin County Medical Examiner

A statement by J. Paul Carlson, M.D., Minnesota Medical Association

**T**he Minnesota Medical Association is outraged by the various statements made by the Hennepin County attorney's office and the county medical examiner regarding the issue of administering pain-relieving drugs to terminally ill patients. Many of the remarks that have been made concerning this issue are misleading and ill-informed, and we are concerned that a very sensitive and important issue is becoming confused and politicized, to the detriment of patients and their families.

The implications underlying the dissemination of these "voluntary guidelines" are that members of the medical community are confused about their responsibilities in treating terminally ill patients. *On the contrary*, there is a *high degree of consensus* among physicians who practice in this area about the need for being sensitive to the relief of pain, discomfort, or distress of the terminally ill patient. At the same time, physicians are clearly bound by ethical standards and licensing laws to act as their patients' advocates, and *under no circumstances* will that include active euthanasia. Any implication or suggestion of that occurrence is an absolute affront to the more than 8,000 licensed physicians practicing in this state.

The Hennepin County Attorney's office failed to note the existence of a *Position Paper on the Management of Pain and Suffering in the Dying Patient* (see page 36), which was developed by a panel of local expert physicians, adopted by the Hennepin County Medical Society earlier this year, and forwarded directly to that office. That committee of Hennepin County Medical Society physicians performed a very thorough review of the relevant issues and also reviewed all the relevant literature and guidelines that have been published on this issue. Its final recommendations are a summary of the position of organized medicine on this subject and should not be dismissed in favor of a non-medically oriented political response. The fact that the county attorney's office chose to ignore these guidelines cannot be explained. We urge you to review them carefully.

**I**t is unwise and ill-informed to characterize the treatment rendered in the two cases investigated by the county attorney's office as "homicides." Although we prefer not to comment on the specific facts in those two cases because we have not been fully informed on all the relevant issues, we do know that the very fact that large or larger-than-



average doses of morphine were administered is not enough reason to conclude that morphine caused the deaths or that the deaths were homicides. Quoting from the HCMS Position Paper: "The administration of large quantities of narcotic analgesics is not euthanasia when the purpose is to alleviate pain and suffering, not to shorten the life of the patient. There are sufficient ethical, moral, and medical reasons to prescribe morphine, and other pain relieving medications, even at the risk of hastening the patient's death."

The paper goes on to say, "The goal of treatment is to relieve patient suffering to the fullest extent possible. For dying patients there is no 'cap' dose; high doses may be required for relief of pain and suffering." There is already a high level of concern that physicians may be increasingly reluctant to administer necessary and appropriate pain-killing drugs to patients, given the already high degree of regulation and oversight by agencies like the Minnesota Board of Medical Examiners. A survey conducted earlier this year as part of a Board of Medical Examiners' study verified that physicians have already modified their practices in this area as a result of the regulatory climate. The impact of these changes will unfortunately fall on the patients suffering from painful conditions and their families, who may find it increasingly difficult to obtain the relief they so desperately need in these very sensitive cases.

The suggestion that the guidelines and related standards of care for prescribing drugs to terminally ill patients may potentially vary from hospital to hospital is another example of the county attorney's office apparent lack of understanding of the practice of medicine and the laws that govern it. It is dangerous to imply to members of the consuming public that the type of care they receive could vary in different hospitals. The standard of medical practice *cannot* vary, as evidenced by the fact that the Board of Medical Examiners and malpractice law recognize a community-wide standard of care. Again, this raises the ques-

tion of why the county attorney chose to ignore uniform policies already promulgated on this issue in favor of a mixed approach with individual hospital responses necessitating continued county attorney oversight. This additional layer of confusion is unnecessary and unjustified given the existence of the Board of Medical Examiners, the fact that elaborate hospital guidelines already exist for quality assurance and peer review, and the active involvement of organized medicine in refining these issues even further.

We would like to take this opportunity to again offer our assistance

and our expertise to those at the Hennepin County attorney's office in the event that they continue to believe they have a role in this area of medicine. It is apparent that that office needs more input on the relevant medical issues and the realities of dealing with these cases. It would be a tragedy for patients and their families to suffer as a result of their actions.

Finally, to accuse physicians of committing homicides is wrong. When physicians take their medical oath, they vow to do what is in the best interest of the patient. Allowing patients to suffer is not in that oath . . . and neither is euthanasia. MM

## *Hennepin County Medical Society Position Paper on Management of Pain and Suffering in the Dying Patient*

### *Statement of Need*

Fear, misunderstanding, and misplaced concern can contribute to the pain and suffering of the dying patient. The patient's fear of pain may accentuate the pain or the suffering of both patient and family. Health care professionals' misunderstanding of ethical and legal principles can contribute to the problem. Physicians and nurses may be concerned that administering large amounts of morphine, or other narcotics, to the dying patient may be viewed by others as euthanasia, an intentional act to cause death for reasons of compassion, rather than as an effort to control pain and suffering. This concern is misplaced. The administration of large quantities of narcotic analgesics is not euthanasia when the purpose is to alleviate pain and suffering, not to shorten the life of the patient. There are sufficient ethical, moral, and medical reasons to prescribe morphine, and other pain-relieving medications, even at the risk of hastening the patient's death.

Physicians, and other health care providers, have an obligation to provide maximal relief from pain and suffering for dying patients. To fulfill this obligation, health care providers

must understand applicable ethical and legal principles, as well as current practices in pain management. They must also be attentive to the individual patient's response to narcotic and sedative drugs.

### *Scope of Statement*

This statement applies only to the use of narcotics, and other analgesia, in the management of pain and suffering in dying patients, based on accepted medical, ethical, and legal principles and practices. Other institutional policies and guidelines address pain control for non-terminal patients, as well as termination of life-sustaining treatment for dying persons, and specific treatment modalities such as cardiopulmonary resuscitation, sustained assisted ventilation, etc. Other policies and guidelines address the decision-making process, including the role of advance directives. Physicians and other health care professionals should be knowledgeable about all policies and guidelines that apply to the care of persons with terminal conditions.

A dying patient is an individual with an incurable and irreversible condition that usually leads to death unless life-sustaining treatment is instituted or continued.

## *Principles for the Management of Pain and Suffering for Dying Patients*

Dying patients who possess the capacity for decision-making, or the appropriate surrogates of patients who do not have the capacity to make decisions, have the right to participate in decisions about the course of their own medical treatment, including the degree of pain relief desired. Health care professionals should make every effort to relieve the suffering of the dying patient, even if this requires intermittent or continued administration of significantly larger doses of narcotics and sedation, which in circumstances other than anticipated death would be considered inappropriate. *The goal of treatment is to relieve patient suf-*

*fering to the fullest extent possible.* For dying patients there is no "cap" dose; high doses may be required for relief of pain and suffering.

The role of the physician in caring for the dying patient is to provide comfort and maintain dignity. Dying patients should be assured that maximal comfort will be provided even in the face of impending death, and even when the physical effects of narcotics or other analgesics, such as falling blood pressure, declining rate of respirations, or altered level of consciousness, are present. On the other hand, it is unacceptable for health care providers to administer such drugs for the purpose of abetting the patient's suicide, or to deliberately cause the patient's death for reasons of compassion. In managing dying patients, health care profes-

sionals are not obligated to do that which violates their conscience or professional judgment but have the duty to arrange for alternative care under such circumstances. **MM**

*The principles stated herein reflect those stated in 1) The Hastings Center Report, Guidelines on the Termination of Life Sustaining Treatment and the Care of the Dying, 2) the University of California Los Angeles Medical Center Policy, Administration of Narcotics for Dying Patients, and 3) the report of the President's Commission, Deciding to Forego Life-Sustaining Treatment. The President's Commission report references the "principle of double effect," as stated in the Declaration of Euthanasia, Vatican City, 1980.*

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# Independent Contractors Draw IRS' Attention

## *Health-related Firms Misclassifying Employees to Avoid Taxes*

Tim Taylor

Hospitals that depend on independent contractors—and the agencies that provide those contractors—should beware of a knock on the door from the Internal Revenue Service.

The tax collector is examining the income statements of contractors as part of a nationwide crackdown on businesses that misclassify their employees to get around paying payroll and other taxes.

The get-tough policy stems from a December 1988 ruling by the IRS that said nurses associated with a staffing agency were employees of the agency and subject to federal employment tax laws. The ruling set a precedent that is turning the hiring practices of many industries, including health care, upside down.

### **Broad Implications**

Observers said the policy has broad administrative and fiscal implications for hospitals, including employer contributions to federal payroll taxes, fringe benefits, and the cost of administering benefits plans for which independent contractors don't qualify.

Employers have had to kiss goodbye a popular gimmick that helped them maintain minimum staffing requirements while avoiding the high cost of payroll taxes and benefits.

Since the ruling, the IRS has been routinely cross-checking the income tax forms of independent contractors with the forms employers must submit. Workers who earn all of their income from one employer may face an audit, according to the IRS.

For a deficit-conscious federal bureaucracy, the task involves more than idle paper shuffling. According to the most recent IRS estimates, the U.S. government lost at least \$1.6 billion in taxes on contractors in 1984.

That sum includes lost payroll and unemployment compensation taxes paid by the employer, and under-reported income and improper deductions claimed by workers.

### **More than 700 Audits**

Last summer the General Accounting Office, the investigative congressional agency, and the IRS testified before lawmakers about closing this popular means of reducing personnel costs. Since then, the IRS has done more than 700 classification audits and assessed more than \$50 million in back taxes.

Some health care facilities already have reclassified their workers. For

example, Unity Healthcare Holding Co., a New York-based provider of health care personnel, recently converted about 2,000 nurses, therapists, and other workers to employee status.

Unity officials acknowledged that client hospitals also were uncomfortable with the ambiguous status of the workers, especially when it came to settling workers' compensation and unemployment claims.

"The hospitals were feeling at risk. They didn't know what their liability was," said Sylvia Pena, Unity Healthcare's vice president for marketing. The agency now takes re-

*Continued to page 42*

### ***Employees or Independent Contractors?***

The Internal Revenue Service uses 20 legal criteria to determine whether workers are employees or independent contractors. Workers are generally employees if they:

1. Must comply with employer's instructions about work.
2. Receive training from or at the direction of the employer.
3. Provide services that are integrated into the business.
4. Provide services that must be rendered personally.
5. Hire, supervise, and pay assistants for the employer.
6. Have a continuing working relationship with the employer.
7. Must follow set hours of work.
8. Work full time for an employer.
9. Do their work on the employer's premises.
10. Must do their work in a sequence set by the employer.
11. Must submit regular reports to the employer.
12. Receive payments of regular amounts at set intervals.
13. Receive payments for business or traveling expenses.
14. Rely on the employer to furnish tools and materials.
15. Lack a major investment in facilities used to perform the service.
16. Cannot make a profit or suffer a loss from their service.
17. Work for one employer at a time.
18. Do not offer their services to the general public.
19. Can be fired by the employer.
20. May quit work at any time without incurring liability.

Source: GAO/IRS



# Buying a Computer System for Your Practice? Don't Overlook the Contract

Michael R. Cohen, J.D.

"The system looks great. It does billing, accounts payable and receivable, patient record keeping, surgery scheduling, and even performs preliminary diagnosis. I can't wait to get this system installed. Anyway, it's just a standard agreement all of their customers sign," the physician tells the attorney, hopeful that the system can be installed the next day.

Buying a computer system for your medical office requires thoughtful planning and preparation. The decision to automate or to replace an existing system involves more than simply identifying the right technical solution. Certain issues should not be overlooked. These issues most frequently appear in contracts for integrated computer hardware and software systems but also apply to software license agreements, maintenance agreements, contracts with data processing service bureaus, consultant agreements, and other computer-related contracts.

## Define Your Terms

*"How many disputes could have been deflated into a single paragraph if the disputants had dared to define their terms?"*

- Aristotle

The great philosopher must have been thinking about computer contracts when he asked this question. Computer contracts are filled with technical and legal jargon not easily understood by either party. Make sure you understand all the terms and conditions of any agreement you enter into and that the products and services to be provided are clearly defined. It's a good idea to include a definitions section at the start of any contract to clarify and define essential terms. Both the terms and condi-

tions in any computer contract should be defined so that both parties fully understand what their respective responsibilities are and what they are entitled to expect from each other.

## Accountability

If you're buying a computer system, it's advisable to purchase both the hardware and software from one reliable vendor who will remain primarily responsible for making sure the system works. This avoids the inevitable finger-pointing when problems arise and multiple vendors are involved. You don't need to hear from the hardware vendor that it's a software problem or vice versa.

Before making the decision to purchase, contact some of the vendor's customers to determine their level of satisfaction with the vendor's performance and equipment. This is particularly important when considering purchasing a single, integrated system from one vendor.

## What Will the System Do?

It is important first to analyze your office's particular needs, the capabilities and capacities required of the contemplated system, and the ability of a proposed system to fulfill those needs. Take the time to prepare a detailed written statement of the functions and performance you expect from the new system. These requirements and specifications can be written either by your own staff or by an independent consultant. These requirements and specifications should be carefully drafted and made a part of the final written contract.

## Soliciting Vendor Proposals

These functional requirements and specifications can also form the basis

of a request for proposal (RFP), which, along with the selected vendor's proposal, should then become the foundation for the final contract.

## Standard Vendor Agreement

In the past, the buyer was in a difficult negotiating position when purchasing a computer system. Vendors were simply not willing to deviate from their form contracts. Now, a more competitive computer industry has compelled some vendors to become more willing to negotiate the terms and conditions of these contracts. Vendors differ substantially, however, in their willingness to negotiate with individual customers over the terms of their standard contract. While there has been some shift in the industry toward contract terms that are fair and equitable to both parties, many of the larger vendors continue to take the position that their form contracts are uniform and non-negotiable.

In any case, scrutinize the provisions of any standard vendor agreement, because they frequently favor the vendor and offer little recourse for you if your expectations are not met. It is often possible to gain some concessions through effective bargaining. Ultimately, the level of success will depend upon the relative leverage of the parties, the stage at which contract negotiations begin, and the willingness of the vendor to stand behind its products as a solution to your needs.

## Warranties: How Will the System Perform?

You might assume when buying a computer system that it will perform

as it was demonstrated by the vendor and that it will meet your needs. However, don't count on the vendor guaranteeing such performance. Forget about all those wonderful statements made by the sales representatives. In fact, the vendor's proposed contract will most likely specifically state that any promises or assurances made by the vendor are not valid or enforceable. The contract will also disclaim all "implied" warranties, including any warranty that the computer system will be suitable for any particular purpose. It is essential, therefore, to have proper express promises or warranties in any computer contract. A simple express warranty might state, for example, that the system will meet your requirements and will conform to and perform in accordance with the descriptions and specifications contained in the RFP and the vendor's proposal.

If you can't rely on an RFP or vendor's proposal for necessary functional requirements or specifications, then it is even more important to set forth specific system performance warranties. These warranties might require a prompt response time, limited downtime, sufficient capacity, or other performance features. If the system must generate timely reports, make sure these requirements are clearly set forth in the form of a warranty.

The process of negotiating express warranties with a vendor can also prove invaluable in analyzing potential risks and concerns. If these issues are identified early in the procurement process, they can be more easily and less expensively resolved. A vendor's reluctance to provide reasonable warranty protection might be an indicator of the vendor's own lack of confidence in the system.

### ***Don't Forget the Software***

A computer system is not just a sophisticated piece of machinery. The software is at least as important as the hardware and presents some of the more challenging procurement issues.

If you're interested in being able to maintain or modify the software yourself, then obtaining what is called

the "source code" is essential. The source code allows another programmer to modify and correct errors in the program, because it is written in a language more easily understood by programmers. A complete, detailed definition of what is included as software should be set forth in the contract. Specify what documentation will be provided with the hardware and software and in what quantity.

### ***Transferring Data***

It is important to consider the feasibility of and specific manner in which your existing procedures and information will be transferred from manual or automated systems to the proposed new system. It's also important to have a clear understanding of precisely how and when this will be done and by whom.

### ***Medical Diagnosis Software***

Of particular concern to medical groups should be the increased availability and use of expert medical software systems. Software is now available to assist in various stages of medical diagnosis. This diagnostic software will no doubt become increasingly sophisticated and useful in the future. The potential benefits of such software are great, but so is the potential for harm if the software proves defective or is misused. For this reason, software developers are reluctant to market such software without significantly reducing their own potential risks. Users must also be careful to minimize their potential liability when using such expert systems and should pay close attention to the risks and liabilities set forth in the initial contract.

### ***Maintaining Leverage***

The best written contract will not ensure a properly operating computer system. Paying or withholding money is still the best method of assuring performance. A substantial amount of the total purchase price should be withheld until after installation and acceptance testing of the system is satisfactorily completed. This allows you to make sure the system per-

forms as expected in your workplace, using real data. The length and degree of acceptance testing can be negotiated; don't make your final payment until after the system passes such tests.

### ***Don't Overly Restrict Yourself***

Computer contracts frequently contain restrictions on use and disclosure. Be wary of overly broad confidentiality obligations that might impose unnecessary potential risk and liability. At the same time, make sure that the vendor agrees to maintain your data as confidential, particularly as it relates to patient information. Review any restrictions on use to ensure that they are reasonable and allow sufficient flexibility.

### ***Don't Forget Training***

Training of your personnel in operating the system should be covered in the contract, including who, what, where, when, and at what and whose cost. The greatest computer system in the world will be of no use to you if the people who operate it are not trained properly. You should also consider future training options.

### ***Maintenance***

Maintenance of hardware and software should also be negotiated as part of the initial agreement. A process for giving notice of malfunction or problems, how quickly the repair company responds to and corrects problems, and remedies for non-compliance should all be set forth in the contract. The potential for obtaining maintenance from a third party, particularly in the case where the vendor becomes insolvent or otherwise unable to maintain the system, should also be addressed in the contract. Make sure the vendor has a long-term commitment in the contract to maintain the system and is required to provide you with adequate notice before terminating maintenance service to enable you to make alternative arrangements.

### ***Traps for the Unwary***

What happens if you miss payments? Will you be provided sufficient no-



tice and opportunity to correct the default? One contract for a medical group allowed the vendor the right to enter the premises without prior notice and remove the entire computer system if the medical group was seven days late on one of its payments. Other issues to consider:

- When is delivery complete?
- Who installs the system, and what is necessary for installation?
- How are modifications or enhancements to the system handled?
- What about upgrades to the system?
- What happens if the contract is terminated?
- What do you own? Can you sell, assign, or transfer the system?
- Are there any hidden costs or fees?
- Who pays the taxes?

### *Don't Treat the Contract as an Afterthought*

The process of purchasing a computer system should not be an intimidating one. With proper planning, it should result in a more efficiently run office. The contract should not, however, be treated as an afterthought. It should be fair in its allocation of risks and liabilities and should serve as an accurate reflection of both parties' expectations and responsibilities. Most important, it should be clearly written and understandable. MM

*Michael Cohen is an attorney with the Minneapolis law firm of Leonard, Street and Deinard. His primary area of practice is computer law, involving the marketing, distribution, and acquisition of computer hardware and software systems and services.*

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## **Independent Contractors**

*From page 39*

sponsibility for those workers.

### **Overhead Rises**

For Unity, whose third-quarter 1989 revenues were about \$6 million, the conversion from independent contractors to full-fledged employees entitled to fringe benefits and subject to payroll taxes boosted administrative overhead 17 percent a year.

Misclassifying a worker can be a costly mistake for those who run afoul of the IRS regulations. At a minimum, employers are liable for back taxes, according to William Falk, a partner with Thompson & Mitchell, a St. Louis law firm.

If the IRS determines that the misclassification was deliberate tax evasion, employers may be subject to interest payments and fines for each misclassified worker.

Even if an employer survives an

IRS audit, there are other perils awaiting those who rely on independent contractors.

### **Plethora of Laws**

"To say you have solved the situation because you have dealt with the federal tax issue is inaccurate," Falk said. There also is a plethora of state laws that have to be satisfied, especially regarding workers' compensation claims.

Falk noted that state definitions of employee status frequently are more strict than federal guidelines. When it comes to paying the claim for an injured worker, many states presume the worker is entitled to all the benefits of full-fledged employees, and leave it to the employer to prove otherwise, he said. MM

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## Practicing within Parameters

*Richard B. Tompkins, M.D.*

I look forward with pleasure to serving as your president. In the coming year, we will face many challenges. One of the most important will be dealing with those who wish to establish practice parameters, which will shape medical practice well into the future.

Indeed, practice parameters are here to stay. At the AMA Leadership Conference in February, we received an 82-page booklet listing practice parameters that have already been developed by 23 specialty societies and 11 voluntary associations or public agencies. The book does not purport to be a complete listing.

Last year, Minnesota's Foundation for Health Care Evaluation, under its contract with the Health Care Financing Administration, doubled the number of procedures that must be precertified for state Medicare patients. Blue Cross and Blue Shield of Minnesota now uses the Value Health Sciences computer software program to evaluate 10 medical procedures before authorizing them.

Motivations for establishing parameters vary. Some efforts are meant primarily to curb rising health care costs. Others are intended to educate physicians about management and therapy that are most effective.

In the rush to set standards, we must make sure quality of health care is not sacrificed to budgetary constraints. At the AMA Leadership Conference in February, former Surgeon General C. Everett Koop offered this advice: "Put the bottom line on the bottom of your list of priorities. If doctors pay attention to high quality and high efficiency in their medical practices, in most instances the bottom line will take care of itself."




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"It is crucial  
that physicians be  
involved in this  
process to preserve  
efficient,  
high-quality care."

One way of assuring high efficiency is to establish practice parameters that are appropriate for clinical practice. Reliable data that identify the most effective treatments will eliminate unnecessary procedures and at the same time be cost effective. It is crucial that physicians be involved in this process—from developing parameters to evaluating their appropriateness—in order to preserve efficient, high-quality care.

Practice parameters should remain flexible and be easily revisable. Otherwise, they could have a stultifying effect on the practice of medicine and, eventually, perpetuate outmoded treatments. As the practice of medicine constantly improves and new treatments become available, parameters will require ongoing evaluation and revision.

Through the Minnesota Clinical Comparison and Assessment Project (MCCAP), Minnesota physicians are developing and testing practice para-

eters. The Minnesota Medical Association, the Council of Hospital Corporations, the Hennepin County Medical Society, the Minnesota Hospital Association, and the Ramsey County Medical Society are collaborating on the MCCAP program. Coordinated by the Healthcare Education and Research Foundation, MCCAP is designed to help Minnesota physicians and hospitals compare their performances against well-defined practice guidelines and with colleagues' performance in various Minnesota communities. The MMA Interspecialty Council and the MMA Ad Hoc Committee on Quality Assessment and Data Utilization have also been monitoring the MCCAP project.

The first phase is now nearly complete. MCCAP consensus panels developed drafts of practice parameters for five medical conditions and procedures including cholecystectomy, abdominal hysterectomy, asthma, uncomplicated myocardial infarction, and total hip replacement. Currently, they are in the process of circulating the drafts to physicians and hospitals throughout the state and inviting critical comment.

The second phase, data collection, is expected to begin soon. In addition, researchers from the University of Minnesota are conducting a related study that will follow the outcome of hospital patients. Once appropriate data have been collected, detailed information about the appropriate management of care will be fed back to physicians so they can learn what their peer group is doing and how this affects outcomes. It is anticipated that physicians will modify their practice patterns appropriately once they have been given sound data via the feedback loop.

*President's Letter to page 49*





# FINANCIERS.

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## People and Places Making Medical News

### People

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#### In Memory: 'U' Dean

W. Albert Sullivan, Jr., M.D., associate dean of student affairs at the University of Minnesota Medical School since 1973, died April 29 at his home in St. Paul of complications of an inoperable brain tumor. He was 66.

Sullivan, a native of Nashville, Tennessee, had been ill since last summer. He came to the university in 1946 while still attending Tulane University Medical School. Following his graduation, he was a surgical resident of famed University of Minnesota surgeon Owen Wangenstein, M.D., before going to the American Hospital in Paris in 1947 for two years for further surgical training. Sullivan also served as a military surgeon during the Korean War. He finished his residency at Minnesota in 1956 and went on to specialize in the surgical treatment of neck diseases for more than 30 years. In 1965, he began part-time work in the medical school dean's office, and he became assistant dean of student affairs in 1968.

#### Distinguished Service Award

William E. Jacott, M.D., of Minneapolis, in April received the fifth annual Distinguished Service Award from the Federation of State Medical Boards of the United States Incorporated. Jacott is assistant vice president for health sciences at the University of Minnesota and serves on the American Medical Association Board of Trustees. He was president of the Federation of State Medical Boards from 1986 to 1987 and served on its board of directors from 1981 to 1988. Jacott also served on the Minnesota Board of Medical Examiners from 1975 to 1988.

#### PHP President

The PHP Board of Directors announced in April the appointment of P. Robert Larson as president of Physicians Health Plan (PHP) of Minnesota. Larson, who will continue to serve as PHP's chief operating officer, is in charge of the health plan's day-to-day business and reports to Chairman and Chief Executive Officer K. James Ehlen, M.D.

Before joining PHP in 1988, Larson served at United HealthCare as a senior vice president and president of subsidiary operations. He served as senior vice president of finance for Fairview Community Hospitals of Minnesota for nine years before joining United in 1985.

#### Academic and Research Honor

Jesse E. Edwards, M.D., senior consultant of United Hospital's Jesse E. Edwards Registry of Cardiovascular Disease in St. Paul, in May received an honorary Doctor of Science degree from Georgetown University's School of Medicine. The award recognizes Edwards' distinguished career in academic medicine and his research in cardiovascular pathology.

#### ACP Award

Richard J. Reitemeier, M.D., received the Alfred Stengel Memorial Award for outstanding service to the American College of Physicians in an official capacity. He is professor of medicine at Mayo Graduate School of Medicine, Rochester, Minnesota. In more than two decades of service to ACP, including a term as president (1983-94), Reitemeier's contributions included initiating the establishment of a college section to investigate information transfer technology as it might apply to graduate medical education, supporting health education for the

public, and contributing to the college's Ethics Manual, now in its second edition.

#### MedCenters Director

Kirby Erickson has been named executive director of MedCenters Health Plan, Minnesota's third-largest health maintenance organization (HMO). Erickson will replace Don Gerhardt, who resigned in February.

As executive director of MedCenters, Erickson will oversee all operations of the HMO, including strategic planning and board and consumer relations. Before his appointment, Erickson was regional vice president of Partners National Health Plans, MedCenters' parent company. Before joining Partners in 1988, he was chief operating officer of Physicians Health Plan, the Twin Cities' largest HMO.

#### 'U' Nursing Dean Resigns

Ellen Fahy in April announced her resignation as dean of the University of Minnesota School of Nursing after 10 years and will remain at the school as a professor until she retires in two years. A search is underway for her successor.

### Places

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#### Highly Esteemed Hospitals

Mayo Clinic (which includes its two affiliated hospitals, Saint Marys and Rochester Methodist) and the University of Minnesota Hospital made a list of the country's 57 best hospitals compiled by *U.S. News & World Report*. The magazine mailed questionnaires to 400 specialists



identified as leaders in their fields and asked the physicians to list, in no particular order, the 10 best institutions in their specialties.

The Mayo Clinic was the only institution in the nation to be rated among the best in 11 of the 12 specialties surveyed: AIDS, cardiology, gastroenterology, neurology, oncology, ophthalmology, orthopedics, otolaryngology, pediatrics, rehabilitation, rheumatology, and urology (it was not ranked as a leader in pediatrics). The university was ranked among the best in two specialties, but some of its strongest programs—transplantation, for example—were not included in the survey.

### **National Center for AIDS Statistics**

The University of Minnesota received a five-year, \$19.4 million grant from the National Institute of Allergy and Infectious Diseases to collect and analyze data on experimental AIDS drug treatments. Data from thousands of patients participating in the new Community Programs for Clinical Research on AIDS will be assimilated at the biostatistics center of the university's School of Public Health. This research, unlike most current AIDS research conducted in academic institutions and teaching hospitals, will be conducted by primary care physicians participating in the community programs. So far, 18 community programs have been established nationwide, but none in Minnesota, and federal officials plan to add another 20. School of Public Health assistant professor James Neaton will be the center's director.

### **Re-search for 'U' VP**

University of Minnesota officials announced in April that the search for a vice president for health sciences had reached a stalemate and a new search committee would be formed to begin anew. Officials said that the first search committee had narrowed the field to four

qualified candidates, but a deep split among the committee's constituencies and a lack of enthusiasm for any of the candidates forced the university to form a new committee.

The search began more than a year ago when Neal Vanselow, M.D., resigned the post to become chancellor of Tulane University Medical Center in New Orleans. The new search committee is scheduled to fill the vacant position by July 1, 1991. Cherie Perlmutter will continue as acting vice president of health sciences in the meantime.

### **'U' Hospital Price Hike**

The University of Minnesota Hospital Board of Governors in April approved a price hike of up to 9.9 percent but stressed the need to curtail escalating costs to stay competitive. Hospital rates will rise 7.5 percent July 1, but the board approval of the higher figure means the hospital can raise its rates even higher if necessary to offset losses. This is the third year in a row administrators have requested rate increases close to 10 percent. The hospital has suffered financially from declining admissions and lengths of stay and from Medicare reimbursement changes. The hospital has cut its staff from the equivalent of 4,070 full-time employees a year ago to 3,742 now, with the equivalent of 3,472 full-time employees projected in 1991, hospital administrator Clifford Fearing said.

### **Mayo Scottsdale Expansion**

Mayo Clinic Scottsdale (Arizona) will double in size as a result of a \$30 million expansion and renovation nearly three years ahead of schedule, according to Richard W. Hill, M.D., chairman of Mayo Clinic Scottsdale's board of governors.

A ground breaking ceremony for the 146,800 square-foot addition to the present building was held April 23, actual construction began in May, and completion is slated for early 1992. The

expansion timetable was accelerated due to a higher-than-expected patient demand during the facility's first years of operation.

### **Program for the Chronically Ill**

HealthEast's Bethesda Lutheran Hospital in St. Paul in April opened Three West, a new medical unit for chronically ill patients. The unit will provide acute care for patients needing prolonged hospitalization for medical and surgical illness and will provide a place to which hospitals can discharge certain patients earlier than would otherwise be possible.

Patients in the new unit will need continuous acute medical care that can be safely managed without in-house intensive care, coronary care, or surgical services. Three West will provide a 24-hour in-house physician access, acute-care nursing services, social services, physical medicine, respiratory therapy, nutritional and pharmacy assessment and monitoring, and chaplain services.

### **New Kids on the Block**

HealthEast's Divine Redeemer Memorial Hospital in South St. Paul opened a new pediatrics unit April 30. Its pediatric unit is designed for children from 28 days through 14 years of age.

### **Changing Babies' Diapers**

United and Children's hospitals of St. Paul announced that they will discontinue using disposable diapers August 15. Officials at the two hospitals—whose patients soil some 400,000 diapers annually—made the switch primarily for environmental reasons, but also because the cost and technology justify a move to a cloth diaper service. Hospital officials aren't sure of the financial impact, but the change could very well save money. About 3,600 babies are born each year at United, 2,000 at Children's.

## Socioeconomics .....

### AZT for Kids

The U.S. Food and Drug Administration announced in May that AZT is now standard therapy for treating HIV-infected children and for children with AIDS. Clinical trials of more than 200 children have shown that side effects in children are similar to those in adults. The drug has been available in syrup form since last October, but a new label recommends dosages for children between three months and 12 years.

### AIDS, HIV Prevalence

- Four years after state health officials predicted the number of Minnesota AIDS cases would swell to as many as 1,930 in 1990, they have readjusted their estimates to less than half that. As of mid-April, there were 687 reported cases, with no more than 850 expected by year's end. This figure falls far short of even the most conservative 1986 estimate of 970 cases. Lower-than-expected estimates are believed to result from new drugs that delay the onset of AIDS among HIV-infected people and sexual behavior changes among gay and bisexual men.

As evidence of the latter reason, a study released in April by the Minnesota Department of Health showed that gay and bisexual men in the Twin Cities practice safer sex and approve of HIV testing. Seven of 10 who responded to the health department's survey said they regularly use condoms and other measures to guard against HIV infection. Three out of four of the 404 men surveyed said they had been tested for HIV; 11 percent of those tested had the virus.

- Although the number of Minnesotans with AIDS has been lower than expected, the prevalence of the disease among children nationwide jumped 47 percent over the past year. And, according to the Centers for Disease Control (CDC), the rate will increase even more dramatically in 1991. In late

February, there were 2,116 cases nationwide, compared with 1,440 in February 1989.

- Only two of every 10,000 childbearing women in Minnesota are HIV infected, according to a study by the Minnesota Department of Health, a rate that is as much as 35 times lower than in other states. Kristine MacDonald, M.D., and colleagues studied blood samples taken from 62,000 newborns across the state. Not surprisingly, the highest rate was in Hennepin County, where 4.6 of every 10,000 were infected. Ramsey county had a 3.7 rate, and the Twin Cities metropolitan area had a 3.5 rate. Minnesota ranked 14th highest of the 16 states that have reported such findings.

### Measles Epidemic

A 14-month-old St. Paul Hmong boy died from complications of red measles May 2, the first measles-related death in the state in 10 years, and two more measles-related deaths followed within a week. As of early May, more than 300 measles cases were reported in Minnesota, the majority of them in St. Paul. About 40 percent of cases statewide involved Twin Cities Hmong residents. The high measles incidence among Hmong people can be attributed to the ease with which the airborne virus spreads in often cramped Hmong households and to certain cultural factors that deter the Hmong from seeking help early and lead to a distrust of Western medicine.

The 300-plus cases also marked the first time in 10 years that the number of state measles cases topped 100. In 1980, there were 1,100 cases and two deaths. Last year, there were 70 measles cases statewide.

### Sharing the Cost

Share Health Plan, under pressure from the Minnesota Department of Health, has slightly pared the large rate increase it announced earlier.

The new rate increase for those who buy coverage for an individual rather than a group will be about 5 percent less than the one first proposed. Share is switching from flat fees, whereby all members pay the same fee regardless of age or gender, to a so-called "table rate" based upon a member's age and gender.

Under the rate increase, some members' fees will nearly triple from last year's rates. In 1989, all Twin Cities members buying individual coverage paid \$95.50 a month. This year, monthly fees for these selected age groups will be: \$273.48 for men 60 to 64 years old, \$260.69 for women 60 to 64 years old, \$51.18 for men 20 to 24, \$132 for women 20 to 24, \$63.97 for men 24 to 29, and \$169.53 for women 25 to 29.

### End of an Alliance

St. Paul-Ramsey Medical Center on May 1 ended a 10-year agreement with its tenant, Gillette Children's Hospital, that provided Gillette with exclusive use of two operating rooms and a discount for laboratory tests, certain X-ray exams, and food and pharmacy services. Gillette will now be asked to pay market prices for most of the services it now receives and will receive a lower discount than its previous 18 percent for the rest of the services. Gillette's Chief Operating Officer Margaret Perryman said Gillette will be forced to pass the increased cost of about \$300,000 on to its patients.

According to Ramsey senior vice president and chief operating officer, Jim Dixon, the decision was prompted by Gillette's joining Minneapolis Childcare Inc., the parent company of Minneapolis Children's Medical Center. Twice in the past four years Gillette had declined offers to join Ramsey HealthCare Inc., Ramsey's parent firm.

### The Uninsured

The Census Bureau reported in April that 13 percent of Americans



(31.5 million people) had no health insurance in 1988. The bureau also reported that 26.5 percent of Hispanic Americans, 20.2 percent of blacks, and 11.7 percent of whites were uninsured. Sixteen- to 24-year-olds were least likely to have insurance; 21.9 percent lacked coverage, according to the report.

### A \$539.9 Billion Bill

Americans spent \$539.9 billion on health care in 1988, up sharply over the previous year, for a record 11.1 of the gross national product, Secretary of Health and Human Services Louis W. Sullivan announced in May. By comparison, health spending in 1960 was 5.3 percent of the GNP.

### Diagnosing for Profit

Physicians whose pay is a flat percentage of their patients' fees tend to order more tests and X-rays than those who are paid by the hour, a study in the April 12 *New England Journal of Medicine* indicated. David Hemenway, an economist at the Harvard School of Public Health, and colleagues studied 15 physicians employed by the largest chain of walk-in health centers in the nation, and compared their practice patterns before and after their employer switched from paying by the hour to paying a percentage of total receipts. The physicians performed about 20 percent more tests and X-rays when they received a cut of patient fees, the researchers determined.

### Prescribing Errors

Nearly 2.5 errors are made daily by teaching hospital physicians when they prescribe medications to patients, a study in the May 2 *Journal of the American Medical Association* reported. More than half the errors are serious enough to pose a health risk to patients, according to Timothy S. Lesar,

Pharm.D., Department of Pharmacy, Albany Medical Center Hospital, Albany, N.Y., and colleagues.

The most prescribing errors occurred in obstetrics and gynecology, along with surgery and anesthesia, the study found. And first-year residents made more prescribing mistakes than their more experienced counterparts.

The study was conducted in a 640-bed, tertiary-care teaching hospital in northeastern New York. In 1987, when the study took place, a total of 289,411 handwritten medication orders were reviewed. Of those, 905 prescribing errors were detected and averted for an overall error rate of 3.13 per 1,000 orders.

Nearly 58 percent of the 905 errors were considered significant mistakes by the investigators reviewing the prescriptions. The authors listed the potential consequences of significant errors—if they were carried out—from life-threatening reactions to bothersome side effects. They labeled 1.8 errors per 1,000 prescriptions as significant mistakes.

### Medicaid Drug Discount

The pharmaceutical company Merck Sharp & Dohme in April announced a new program that will give the nation's poor easier access to its prescription drugs. The company will offer its lowest prices to any state that does not restrict the physicians' use of its products for Medicaid patients. Merck Sharp & Dohme officials said the cost-cutting measure will ensure that Medicaid patients receive the same medicines available to the general public.

### Innovations

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#### Cystic Fibrosis Drug

A variation of a common high blood pressure diuretic has been shown to clear the thick lung secretions in cystic fibrosis patients and may slow lung damage in those suffering from the disease,

according to a study in the April 26 *New England Journal of Medicine*. In the preliminary study of the drug amiloride, 14 adults with cystic fibrosis inhaled either the drug in a spray form or a placebo. All of the patients studied were given amiloride for six months and the placebo for six months, while researchers charted the rate of lung damage. Although their conditions did not improve, the drug appeared to slow the rate of lung damage, according to the authors, Michael Knowles, M.D., at the University of North Carolina and colleagues.

Amiloride apparently reduces salt and water absorption in lung cells. Further research is planned to determine the effects on children under 12.

### Brain Cell Multiplication

For the first time, researchers have grown brain cells in the laboratory. A research team led by Solomon Snyder, M.D., of Johns Hopkins School of Medicine in Baltimore has grown a colony of living brain cells that divide and grow in laboratory dishes. The continuous culture of brain cells was lauded by other researchers as a vital step in treating brain diseases such as Alzheimer's or brain trauma resulting from stroke or head injury. Snyder, whose findings were published in the May 4 issue of the journal *Science*, said of the brain cells his team successfully multiplied, "If they were placed into the environment of the brain, we would expect them to be functional," but he added that years of further research were needed to reach that stage.

### Embryo Gender

Researchers have developed a technique that they say reveals the gender of 3-day-old embryos produced in vitro before they are implanted in a woman. The researchers, Alan Handyside, M.D., and colleagues at the Royal Postgraduate Medical School at Hammersmith Hospital in London,

have successfully selected and implanted female embryos in three women. The technique, described in the April 19 issue of the British journal *Nature*, involves removing a single cell from eight-cell embryos and testing for the presence of a Y chromosome.

The researchers said the technique, combined with further research, could screen embryos that would develop serious genetic diseases. Handyside's study was designed to produce female babies in cases where a boy could inherit such a disease.

## Medical Research

### Unrelated Donor Transplants

Unrelated donor bone marrow transplants often can help sufferers of one of the most common adult leukemias who lack a suitable sibling donor, according to results from a University of Minnesota-based study.

Among 102 people with chronic myelogenous leukemia (CML) who received unrelated donor bone marrow transplants between April 1985 to February 1989, 92 experienced engraftment of their transplant, according to the study published in the April issue of *Blood*. Engraftment is an indication of blood cell production, which is one measure of a bone marrow transplant's success. Of the 102 original patients, 46 are still alive. The median survival rate for the group is 26 months. The transplants were performed at the Fred Hutchinson Cancer Research Center at the University of Washington, Seattle, the Medical College of Wisconsin, Milwaukee, and the Hammersmith Hospital in London, England, as well as the University of Minnesota.

CML accounts for approximately 35 percent of all adult leukemia, and it is the disease for which physicians have the most experience in using bone marrow transplantation with related donors. However, less than 40

percent of all CML patients who might benefit from a bone marrow transplant have a sibling with human leukocyte antigens identical to their own.

### Ibuprofen and Kidney Disease

Over-the-counter doses of ibuprofen, one of the most common pain relievers, may cause kidney failure in people with mild kidney disease, according to a study by Andrew Whelton, M.D., and colleagues at Johns Hopkins University in Baltimore. The study, published in the April 15 *Annals of Internal*

*Medicine*, involved 12 women with mild kidney disease who also had arthritis and high blood pressure, both of which are often treated with ibuprofen. The women were given 800 milligrams of ibuprofen three times a day for up to 11 days.

Three women developed kidney failure after three days but recovered when the ibuprofen was stopped. After they had recovered, the dosage was halved, and two of the three again suffered kidney failure. The other eight showed changes in kidney function, but their kidneys did not fail. MM

## President's Letter

*From page 43*

The MCCAP parameters, which will continue to be refined, will be used by hospital quality assurance committees to give physicians a better idea of how certain procedures should be managed. MCCAP practice parameters are intended to define the key elements of providing quality care without utilizing unnecessary resources.

Broad-based participation by physicians and hospitals in all areas of Minnesota is needed to make the MCCAP project a success. I strongly encourage rural, as well as urban, physicians and hospitals to become involved both in the development of guidelines and in the collection of data. Physicians in private practice also need to develop practice parameters that apply to the ambulatory setting and compare them with others' guidelines. It remains to be seen whether certain practice parameters will be applicable across geographic locations and different types of practices, such as academic centers and private practices.

The AMA recognizes the importance of physician involvement in setting parameters. In addition to encouraging medical societies and specialty societies to develop their own standards, the AMA has joined with the Rand Corporation and several academic medical centers to develop national standards of care.

It is critical that physicians everywhere and in all types of practices participate in setting parameters that will guide us in providing appropriate, high-quality care. I'd like to see Minnesota physicians take their usual position—on the forefront. MM

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## *A Calendar of Continuing Medical Education Courses*

*Provided through the MMA Medical Education Subcommittee on CME Resources.* For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; 612/378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

### JUNE 1990

June 1-2 **Cole Memorial Pediatric Orthopaedic Seminar** Shriners Hospital; Shriners Hospital, Minneapolis, MN. CONTACT: Lyle Johnson, M.D., Chief of Staff, Shriners Hospital, 2025 East River Road, Minneapolis, MN 55414; 612/339-6711.

June 1-2 **Morphology of Body Fluids** Mayo Medical Laboratories; Siebens Medical Educational Building, Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 First Street SW, Rochester, MN 55905; 1-800/562-1787.

June 4-8 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

June 11-13 **Partners in Managing Type II Diabetes** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

June 13-15 **Topics and Advances in Pediatrics** Department of Pediatrics, University of Minnesota; Radisson University Hotel, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

June 20-22 **Progress in Cancer Surgery** Department of Surgery, University of Minnesota Medical School; Willey Hall, University of Minnesota, Minneapolis, MN. CONTACT: CME Office, University of Minnesota, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

June 20-22 **54th Annual Course: Progress in Cancer Surgery** Department of Surgery, University of Minnesota; Willey Hall, University of Minnesota, Minneapolis, MN. CONTACT: CME Office, University of Minnesota, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

June 21 **Lasers in General Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, 14202 Abbott North-

western Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

June 21-24 **Current Topics in Laboratory and Clinical Genetics** Mayo Medical Laboratories; Siebens Medical Education Building, Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

June 22-23 **Laser Laparoscopic Cholecystectomy** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, 14202 Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

June 25-29 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

June 29-July 12 **Europe** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116; 612/698-1888.

### JULY 1990

July 1-14 **Catherine the Great's Russia** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116; 612/698-1888.

July 6-22 **Scandinavia, Russia** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116; 612/698-1888.

July 9-13 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

July 12-13 **Neonatal Resuscitation Program** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Joyce Riedi, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-6923.

July 23-27 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

July 25-27 **Laboratory Diagnosis of Viral Infections** Mayo Medical Laboratories; Mayo Clinic, Rochester, MN. CON-

TACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

## AUGUST 1990

Aug. 9-10 **Neonatal Resuscitation Program** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Joyce Riedi, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-6923.

Aug. 25-Sept. 6 **Midnight Sun Express and Alaska Passage** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116; 612/698-1888.

Aug. 27-29 **The Physician's Office Laboratory** Mayo Medical Laboratories; Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

## SEPTEMBER 1990

Sept. 6-8 **Teaching Geriatric Medicine in Family Practice** University of Minnesota; Sheraton Midway, St. Paul, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 7-8 **Mayo Surgical Symposium** Mayo Clinic/Mayo Foundation; Mayo Clinic, Rochester, MN. CONTACT: Rita Kunz, Mayo Medical Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Sept. 9-14 **53rd Annual Course: Radiology 1990, Abdominal Imaging** University of Minnesota; Willey Hall, University of Minnesota, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 13 **Lasers in General Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Sept. 13-14 **Neonatal Resuscitation Program** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Joyce Riedi, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-6923.

Sept. 13-15 **Orthopedic Surgery Course: The Female Athlete** University of Minnesota; Holiday Inn Downtown, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 14-15 **Medical Directors Conference** University of Minnesota; Place to be determined. CONTACT: Pat Morandi, Uni-

versity of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 14-15 **Pediatric Epilepsy: A Primary Care Physician's Perspective** MINCEP Epilepsy Care and Gillette Children's Hospital; Omni Northstar Hotel, Minneapolis, MN. CONTACT: Katherine Glunze, Gillette Children's Hospital, 200 University Avenue East, St. Paul, MN 55101; 612/229-3870.

Sept. 14-15 **Laser Laparoscopic Cholecystectomy** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Sept. 14-16 **Surgery Medical Clinics for Family Practice** University of Minnesota; Grand View Lodge, Brainerd, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 19-21 **Infertility: Advancements in Laboratory & Clinical Procedures** Mayo Medical Laboratories; Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

Sept. 21-22 **Tumor Immunobiology in Head and Neck Cancer** University of Minnesota; Radisson University Hotel, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

## OCTOBER 1990

Oct. 3-6 **53rd Annual Course: Principles of Colon and Rectal Surgery** University of Minnesota; Mayo Memorial Auditorium, University of Minnesota, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Oct. 5 **Current Management of Low Back Pain** Abbott Northwestern Hospital; Wyndham Garden Hotel, Atlanta, GA. CONTACT: Cathy Elmstrom, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Oct. 6 **3rd Annual Current Topics in Laboratory Medicine: Phlebotomy** Mayo Medical Laboratories; St. Luke's Hospital, Kansas City, MO. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

Oct. 10-12 **Internal Medicine Review 1990: Infectious Diseases, Rheumatology, Gastroenterology** University of Minnesota; Mayo Memorial Auditorium, University of Minnesota, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.



Oct. 12-13 **Lasers in Gynecology: A Basic Seminar** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Oct. 12-13 **12th Annual Adolescent Medicine and Health Care Conference: Adolescents and AIDS** University of Minnesota; Holiday Inn Downtown, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Oct. 18-19 **Drawing the Line: Defining Basic Level of Health Care** University of Minnesota; Cowles Auditorium, Hubert Humphrey Center, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Oct. 19-20 **Cutaneous Laser Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Oct. 22-26 **Bulimia Nervosa: Intensive Cognitive Behavioral Group Psychotherapy** University of Minnesota; Coffman Memorial Union, University of Minnesota, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Oct. 25 **Lasers in General Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Oct. 25-26 **Annual Autumn Seminar on Obstetrics and Gynecology** University of Minnesota; Holiday Inn Downtown, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Oct. 26-27 **Laser Laparoscopic Cholecystectomy** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

## NOVEMBER 1990

Nov. 2 **E. T. Bell Fall Pathology Symposium** University of Minnesota; Radisson University Hotel, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

# Health One Medical Education

## June 14

"HEAD INJURY" presented by Elizabeth Davis, MD, Sioux Valley Hospital, New Ulm, MN, 12:00 noon

## June 20-22

**SECOND ANNUAL HEALTH ONE PHYSICIAN LEADERSHIP CONFERENCE**—Grand View Lodge, Brainerd, MN

## September 13-15

**EMERGENCY MEDICINE CONFERENCE**—Radisson South, Minneapolis, MN

## October 6

**THIRD ANNUAL HEALTH ONE PRACTICE OPPORTUNITY FAIR**—a complimentary, full day symposium for residents and clinical fellows in multiple specialties—United/Children's Conference Center, St. Paul, MN, 8:30 a.m.-2:00 p.m.

## October 6

**FOURTEENTH ANNUAL CURRENT TRENDS IN OPHTHALMOLOGY**—Hotel Sofitel, Bloomington, MN—Sponsored by Phillips Eye Institute (PEI)

## October 12

**CURRENT CLINICAL CARDIOLOGY FOR PHYSICIANS and NINTH ANNUAL JESSE E. EDWARDS, MD LECTURE**—8:00 a.m.

## October 13

**ONCOLOGY CONFERENCE**—Marriott City Center, Minneapolis, MN—8-5 p.m.

## November 2-3

**THIRD ANNUAL NEW ULM SEMINAR**—Holiday Inn, New Ulm, MN

## November 9

**ARTHRITIS SEMINAR FOR PRIMARY CARE PHYSICIANS**—Metropolitan-Mount Sinai Medical Center—Orthopaedic Learning Center Auditorium—4:30 p.m.

For Further information, contact the Medical Education Office, Medical Affairs Division, Health One (612) 574-7895 or call toll-free 1-800-343-DOCS

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## Physicians Opportunities and Miscellaneous Listings

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- Placement of ads must be made six weeks prior to the date of publication (i.e., June 15 for August ad). Please send ad requests to *Minnesota Medicine*, 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414.
- The publisher reserves the right to decline or withdraw advertisements. The publisher is not responsible for clerical or typographical errors and is not permitted to divulge the identity of advertisers who have replies sent to box numbers.
- Cancellation of ads must be made by the first of the month preceding month of issue.

**Twenty-nine Physician Multispecialty Clinic** located in desirable east-central Wisconsin location is seeking board-certified or board-qualified orthopedic surgeon to round out its services. Lab, X-ray, excellent hospital. Liberal guarantee and benefits. If interested, contact: D.F. Sweet, M.D., Fond du Lac Clinic, S.C., 80 Sheboygan Street, Fond du Lac, WI 54935. (R)

**Family Physician/Emergency Room:** Full-time salary working weekends, primarily emergency room. Flexibility available. Falls Medical Center, PA, 105 Shorewood Drive, International Falls, MN 56649. Please contact: A. Johnson, M.D., or A. Marc Gorden, M.D., at 218/283-9431 for more information. (R)

**Family Physician** wanted to join four physicians, one nurse practitioner, FP group practicing in two offices in Pine River and Pequot Lakes. Competitive salary. No ob. No HMOs. Rural area with outdoor recreational opportunities. Rotate hospital visits, emergency call; adequate free time. Call or write: C.R. Pelzl, M.D., Pine and Lakes Clinics, PO Box 88, Pine River, MN 56474; 218/587-4416. (R)

**Physician: GP/FP/EM** seeks locations to cover on weekends as locum tenens. Board-certified. FP. Lic. Minn. Write: Box 35132, Minneapolis, MN 55436. (R)

**Family Physician:** Dynamic 13-physician, three-office, single-specialty practice in northwest Minneapolis suburbs seeking additional associate, BE/BC; ob available. Competitive salary, full benefits, reasonable call and hospital rounds schedule. Contact: Dr. Ken Kephart, Northwest Family Physicians; 612/476-6776. (\*R)

**Wausau Medical Center** is seeking BE/BC individuals in the following specialties: cardiology, dermatology, family practice, infectious disease, obstetrics/gynecology, pediatrics, and rheumatology. Modern clinic facility located

across the street from modern, 300-bed hospital. Full partnership in three years. Easy access to lakes, woods, and mountains. Write (including CV) to: D.K. Aughenbaugh, M.D., Medical Director, Wausau Medical Center, 2727 Plaza Drive, Wausau, WI 55401. (R)

**Johnson & Falls Search Associates** represents new practice opportunities locally and nationally. Working exclusively in the area of physician search, we are committed to expanding your professional options while meeting our clients' needs. There are no fees to candidates. For a thorough, confidential search, send CV or call: Liz Johnson or Pat Falls, Johnson & Falls Search Associates, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0237. (R)

**Bemidji, Minnesota:** Excellent opportunities for well-trained physicians. We are seeking board-certified/board-eligible physicians in orthopedic surgery, family practice, ophthalmology, pediatrics, and otolaryngology to join a young 24-physician multispecialty group practice located in northern Minnesota. Competitive salary guarantee plus incentive first year and excellent benefits. An excellent opportunity for a physician to enjoy practice in the center of hunting, fishing, and clear air. Please respond with CV to: C.C. Lowery, Administrator, Bemidji Clinic-MeritCare, 1233 34th Street NW, Bemidji, MN 56601; 218/751-1280. (R)

**Outstanding Opportunity for a BE/BC Family Physician** to join a progressive medical community with eight physicians oriented to family practice. Details will be given by contacting: Dr. Tim Schmitt, Wadena Medical Center; 218/631-1360, or Jim Lawson, Administrator, Tri-County Hospital, Wadena, MN 56482; 218/631-3510. (R)

**Waseca, Minnesota:** Family practice physician to join four family practitioners. Population 8,000. One hour south of Burnsville Center; lakes; industry. Salary negotiable. Clinic-adjacent hospital. Ample free time to enjoy family life. Contact: James W. Dey, M.D., or Ruth Hawker, 501 North State Street, Waseca, MN 56093; 507/835-3110. (R)

**Locum Tenens** physicians needed. Physicians and locations coordinating services. Write to: Margaret Carse, MED Professional Resource Search, PO Box 35215, Minneapolis, MN 55435. (10/89-R)

**Wholesale Life Insurance**—No front load and no surrender charge. Example: 35-year-old ns male, \$500,000. First-year premium—\$2,000. First-year guaranteed cash value—\$1,720. Offered by Ameritas Life Insurance Corp., a hundred-year-old Best's rated A+ (superior) company. For further information contact: Greybull Insurance Services, 1313 5th Street SE, Minneapolis, MN 55414; 612/379-3860. (\*10/89-R)



**St. Cloud**—Minnesota's fastest growing city—family practice physician, two pediatricians, two ob/gyns, BE/BC to join supportive primary care staff in a growing, successful, and innovative prepaid practice. New clinic facility. Full range of fringe benefits (competitive salary, liberal vacation, two weeks' education leave, retirement fund, etc.). Contact: Physician Services, Central Minnesota Group Health Plan, 1245 15th Street North, St. Cloud, MN 56303; 612/253-5220. An equal opportunity employer.

(R)

Main Street, Norway, MI 49870; 906/563-9243, or office 906/563-9255. 2-7/90

**Family Physician or Internist:** Busy family practice/industrial practice located on the beautiful North Shore of Lake Superior. Outdoor activities abound: hiking, skiing—xc and downhill—fishing, etc. Two-physician practice is looking for a third physician for a rewarding practicing. VA nursing home is a near future reality. Contact: Jon Ward, Manager, Silver Bay Clinic, Ltd., Silver Bay, MN 55614; 218/226-4431. (12/89-R)

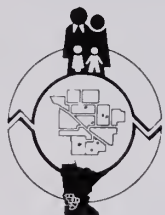
**Radiologist:** A three-physician radiology group is seeking a fourth radiologist with experience and interest in interventional radiology. Dickinson County Hospitals is a progressive, 126-bed, two-hospital system located in Iron Mountain, Michigan's Upper Peninsula. We have a service-area population of over 45,000. Contact and/or send resume to: Drs. Specht/Shampo/Manzano, Radiology Department, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4565.

2-7/90

**Family Practice:** Physicians seeking a BE/BC family practice physician for the Norway, Michigan, service area. The physician would have the option of joining one of the existing practices and/or setting up his/her own practice. Anderson Memorial Hospital is a part of Dickinson County Hospitals and has a service-area population of over 45,000. Contact: Dr. Paul Hayes, Anderson Memorial Hospital,

**Medical Equipment for Sale:** Medical equipment, furniture, and supplies to adequately furnish a one- to two-doctor medical practice. All equipment is in excellent and well-maintained condition. Equipment will furnish four complete exam rooms/emergency room, laboratory, X-ray room, business office, receptionist area, and waiting room. Laboratory includes ZF-5 Coulter Analyzer and binocular microscope. X-ray equipment includes 300 ma X-ray machine and automatic processor. Must see to appreciate. Very reasonably priced. For an appointment to see equipment or for a list of the equipment, please send inquiries to: Minnesota Medicine (837), 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414. 6-6/90

**Mankato:** FP partner to join four board-certified family physicians, ages 31-41, in fast-growing, full-range practice, includes ob. Population 40,000+. Seventy miles to Twin



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**Family Practice—Hospital-Sponsored Clinic Opportunity:**

Dynamic growth-oriented hospital in beautiful north-central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus, and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435; 612/835-5123. (R)

**Urgent Care/Primary Care** physicians for over 90 group positions in metropolitan Phoenix/Tucson, Arizona. Excellent compensation/partnership opportunities. Other quality positions nationwide. Send CV or call: Mitch Young (MM), PO Box 1804, Scottsdale, AZ 85252; 602/990-8080. (\*1/90-R)

**Orthopedic Surgeon:** A progressive, 126-bed, two-hospital system is seeking an orthopedic surgeon to join an established practice in the Iron Mountain area of Michigan's

Upper Peninsula. Must be BE/BC. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Dr. Roberts will guarantee \$250,000 plus malpractice insurance, office space, CME, vacation, and relocation expenses. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4500. \*2-6/90

**Exciting Pediatric Opportunity:** Full or part time. East-metro practice offering stimulating combination of primary care, teaching, and consultative services. Excellent salary and benefits. Inquiries to: Ruth at 612/777-8211. (R)

**Family Physicians:** Well-established south suburban Minneapolis family practice group seeks associates part/full time to staff day clinic. Excellent call schedule, salary, and fringe benefits. Also seeking locum tenens to staff PT/FT Urgent Care Centers and/or day clinic. Contact: Administration, Family Physicians, P.A., 612/435-4125, or send inquiries to Suite 100, 14050 Nicollet Avenue South, Burnsville, MN 55337. (\*9/89-R)

**BE/BC Family Physician:** Excellent opportunity to join well-established, progressive 20-physician multispecialty group located in an economically sound community of 20,000 (drawing area of 30,000), 65 miles south of the Twin Cities. Full membership after one year. Competitive



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salary and fringe benefit package. Contact: Ed Durst, M.D., or Terry Tone, Administrator, 134 Southview, Owatonna, MN 55060; 507/451-1120. (2/90-R)

**Dermatologist, Psychiatrist, Allergist, Internal Medicine, Family Practice:** A progressive, 126-bed, two-hospital system is seeking the above specialties to establish practices in the Iron Mountain area of Michigan's Upper Peninsula. Must be BE/BC. Located 100 miles north of Green Bay, Wisconsin. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Diagnostic capabilities include a CT scanner, CO<sub>2</sub> laser, and a fully staffed special diagnostic department. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4500. \*2-6/90

**Ophthalmologist** to start part time and work into full-time practice. Downtown Minneapolis. Call: 612/332-7745. (1/90-R)

**Positions Available in Family Practice, Internal Medicine, Obstetrics/Gynecology, General Surgery, and Pediatrics:** 28-physician multispecialty clinic seeking additional physicians in FP, IM, Ob/Gyn, GS, and Peds departments. Interstate Medical Center offers a competitive salary, comprehensive benefits, and the support and team approach of a multispecialty environment. Red Wing is a midsized community along the bluffs of the Mississippi

River only 40 miles from the Minneapolis/St. Paul area. Area highlights include an excellent school system, a growing cultural environment, water recreation, skiing, and an active business climate. Red Wing has all the benefits of a metro area in a serene setting. For additional information, please call or send CV to: Don Bruns, M.D., Highway 61 West, Red Wing, MN 55066; 612/388-3503. \*3-8/90

**Internist** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809. (\*3/90-R)

**Family Practitioner** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809. (\*3/90-R)

**Internist—Great Opportunity!** Very busy, young solo internist seeking ambitious associate. Family-oriented community on Lake Winnebago with a population of 40,000. No HMOs or PPOs. A unique opportunity for someone who is genuinely interested in internal medicine and in its subspecialties. An interest in critical care would be of importance. Send CVs to Michael Sergi, M.D., 14 North Main Street, Fond du Lac, WI 54935. 3-6/90

**Minneapolis, Minnesota:** Suburban practice, just 10 minutes from downtown. Multispecialty group with 25 family practice physicians has an excellent opportunity available. Call is one in 25 weekdays and one in four weekends (one day); full day off during week, excellent compensation, and unparalleled benefits program. Call: Robert Hovda, M.D., 612/788-9601, or write: Columbia Park Medical Group, #480, 6200 Shingle Creek Parkway, Brooklyn Center, MN 55430. 3-6/90

**Family Practice:** Family practice physician needed to join an established 14-physician state-of-the-art clinic in a ranching community in South Dakota. Competitive salary guaranteed, plus generous tuition reimbursement-housing-transportation bonuses offered. Malpractice insurance covered. Limited call. Flexible schedule. Outdoor recreation abounds, including hunting, fishing, boating, skiing, and golfing. Cultural opportunities: Allied Concert Series programs. Send resume or inquiries to: Helen S. Lindquist, Administrator, Five Counties Hospital and Nursing Home, PO Box 479, Lemmon, SD 57638; 605/374-3871. 3-6/90

**Central Plains Clinic, Ltd.,** a 70-physician multispecialty group, is seeking BC/BE physicians in the following specialties: dermatology, infectious disease, internal medicine, neurology, and otolaryngology. Central Plains Clinic is located in Sioux Falls, South Dakota, a progressive regional tertiary care medical center with a very favorable tax climate. Guaranteed first-year salary with incentive thereafter along with full benefit package. Contact: Michael R. Ferrell, M.D., Central Plains Clinic, Ltd., 2727 South

Kiwanis Avenue, Sioux Falls, SD 57105; 605/331-3490.  
\*3-6/90

**Small Hospital** 45 minutes west of Minneapolis has noted geriatric program. First-year minimum salary of \$50,000, plus 37 percent adjusted revenues, four weeks' vacation, two weeks' CME, 401(K) pension plan, malpractice. Lake-side community. Call: Wanda Parker at 1-800/221-4762, or collect 212/599-6200.  
\*4-7/90

**Small, Progressive Hospital** in southwestern Iowa seeking third family practice physician. First-year minimum income guarantee \$70,000, plus benefits. Omaha, Nebraska, within hours' drive. Specialists from Omaha provide clinics/backup. Call: Wanda Parker, 1-800/221-4762, or collect 212/599-6200. E.G. Todd Associates, 535 Fifth Avenue, Suite 1100, New York, NY 10017.  
\*4-7/90

**Family Practice, Internal Medicine, Pediatrics, Urology, Obstetrics and Gynecology, Dermatology, and Orthopedics** practice opportunities available at the Faribault Clinic. The Faribault Clinic is a multispecialty group practice of 14 physicians. Faribault is located 50 miles south of Minneapolis on I-35. For more information contact: Ray W. Wood, M.D., or Ken Smith, Administrator, 924 NE 1st Street, Faribault, MN 55021; 507/334-3921. (4/90-R)

**Forest Lake Doctor's Clinic** is seeking a BC/BE family physician, pediatrician, ob/gyn, and internist to join 10-physician multispecialty group. Located 25 miles north of Minneapolis-St. Paul, in progressive community, with excellent schools, many beautiful lakes, recreational activities, golf, fishing, boating, skiing. Local hospital directly across street. Contact: Dr. Harvey J. Frank or Dr. Doug Sill, 121 SE 11th Avenue, Forest Lake, MN 55025; 612/464-7100.  
(4/90-R)

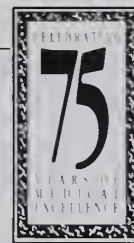
**Psychiatric Practice for Sale** in Hutchinson, Minnesota. Completely modern facility. Approximately two-thirds hospital work (in a 12-bed mental health unit), one-third outpatient cases. Must be BC/BE. Patient base covers a wide area—from the Twin Cities to South Dakota. For more information contact: Eileen Fluegel, 612/587-8457.  
(4/90-R)

**Internist:** Full-time position as chief of Medical Services available July 1. Position includes provision of medical care, coordination of medical services, supervision of admission clinic, direction of infection control program, and responsibility for quality assurance activities. Regular working hours, competitive salary, paid vacation, opportunity to teach medical students, and excellent benefits package make this an attractive position for the person who wants ample personal time. Contact: Myron Malecha, M.D., Medical Director, Anoka-Metro Regional Treatment Center, 3300 4th Avenue North, Anoka, MN 55303; 612/422-4240.  
3-7/90

**General Internist with Psychiatry Interest:** Marshfield Clinic, a multispecialty group practice with over 300 physicians, is

seeking a medical director for the inpatient psychiatry unit. A BC/BE internist with psychiatry experience is preferred. The medical directorship of the psychiatry unit is half time, and the applicant may develop the other portion of practice to meet his or her practice interest. This could include a private practice or noncontinuity of care practice such as a walk-in clinic, pre-op evaluation, or employee health clinic. Starting salary is negotiable but very competitive, and the fringe benefit package is outstanding. Send CV and references to: David L. Draves, 1000 North Oak Avenue, Marshfield, WI 54449; or call collect 715/387-5376.  
\*1-6/90

**Family Practice:** Marshfield Clinic, a multispecialty group practice with nearly 350 physicians, is seeking BE/BC family practitioners to join expanding regional centers. Practice opportunities range in size from single specialty groups of three to multispecialty groups of 25. Positions available in six locations: two in northwestern Wisconsin within 70 and 90 miles of Minneapolis, two in north-central Wisconsin within 80 and 90 miles of Lake Superior, and two in central Wisconsin within 25 and 35 miles of Marshfield. Full specialty consultation readily available. Positions offer strong economic stability combined with exceptional recreational, cultural, and educational opportunities. Starting salary up to \$92,160 with salary in two years up to \$116,400. Fringe benefit package outstanding. Send CV and references to: David L. Draves, Director, Regional Development, 1000 North Oak Avenue,



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The Duluth Clinic, Ltd. a 160-physician regional medical center, has opportunities for physicians in the following specialty areas:

- |                       |                     |
|-----------------------|---------------------|
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| • Electrophysiology   | • Neurology         |
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| • Family Practice     | and Rehabilitation  |
| • Hematology-Oncology | • Psychiatry        |

For more information, contact:

Timothy D. Zager, M.D.  
Recruitment Coordinator  
The Duluth Clinic, Ltd.  
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Marshfield, WI 54449; or call collect 715/387-5376.

\*1-6/90

**General Internist:** Marshfield Clinic, a multispecialty group practice with nearly 350 physicians, is seeking BE/BC general internists to join its 30-member section in Marshfield and three expanding regional centers in northwestern and north-central Wisconsin. An internal medicine residency program, University of Wisconsin Medical School affiliation, and Medical Research Foundation contribute to a very stimulating practice environment. Positions offer strong economic stability combined with exceptional recreational, cultural, and educational opportunities. Starting salaries up to \$92,100 with salary in two years up to \$116,400. Fringe benefit package is outstanding. Send CV to: David L. Draves, Director, Regional Development, 1000 North Oak Avenue, Marshfield, WI 54449; or call collect 715/387-5376.

\*1-6/90

**Primary Care Physician:** Marshfield Clinic is seeking a primary care physician to join its expanding seven-member Emergency Medicine Department. Emergency medicine, urgent and ambulatory care, plus supervision and training of ER staff contribute to a very stimulating practice environment. More than 26,000 ER visits and 13,000 ambulatory care visits annually. Specialists representing all branches of medicine and surgery provide support care and services. Marshfield Clinic is a private group practice consisting of 350 physicians and is physically adjacent to Saint Joseph's

Hospital, a 525-bed acute care teaching facility. Send CV to: John P. Folz, Assistant Director, Marshfield Clinic, 1000 North Oak Avenue, Marshfield, WI 54449; or call collect 715/387-5181.

\*1-6/90

**General Internist with Interest in Preoperative Evaluations:** Marshfield Clinic multispecialty group practice with over 300 physicians is seeking a BE/BC general internist to staff a preoperative evaluation clinic. There is no hospital practice, night or weekend call. This is a half-time position, and the applicant may develop the other half of practice to meet his or her practice interests, which could include staffing a walk-in clinic, employee health clinic, or development of a private practice. Salary negotiable but very competitive depending on the type of practice developed, and the fringe benefit package is outstanding. Send references and CV to: David L. Draves, 1000 North Oak Avenue, Marshfield, WI 54449; or call collect 715/387-5376.

\*1-6/90

**Family Physician:** Full-time senior staff position available October 15. Regular working hours and light call make this an attractive position for the person who values free time. Excellent salary, benefits, and paid vacation. Contact: Myron Malecha, M.D., Medical Director, Anoka-Metro Regional Treatment Center, 3300 4th Avenue North, Anoka, MN 55303; 612/422-4240.

3-7/90

**Family Physician:** Tired of call? Want predictable hours? Full-time physician needed to work three days per week in

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our outpatient family practice clinics. Salary plus bonus and benefits including malpractice insurance. Contact: Todd Patton, M.D., or William Wenmark, CEO, c/o NOW Care Medical Centers, 13031 Ridgedale Drive, Minneapolis, MN 55343; 612/593-9010 (5/90-R)

**Internal Medicine:** Minneapolis, Minnesota, suburban multispecialty group with seven internists is seeking a general internist with or without subspecialty interest. One-hospital practice, excellent salary and benefits program. BC/BE. Contact: Sim Gesundheit, M.D., 612/571-0457 or send CV to: Columbia Park Medical Group, 6200 Shingle Creek Parkway, Suite 480, Brooklyn Center, MN 55430. 3-7/90

**Northern Lakes:** Family practice opportunities in Minnesota's Lake Superior region, northwest Wisconsin, and Upper Michigan. Offering spectacular natural beauty, abundant recreational activities, and competitive packages. Contact: Susan Sowiejka, Northern Lakes Health Care Consortium, 1017 East First Street, Duluth, MN 55805; 218/726-5587. 1-6/90

**Family Practice:** Marshfield Clinic, a multispecialty group practice with nearly 350 physicians, is seeking a seventh BE/BC family practitioner for one of its expanding (12-physician) regional centers in northwestern Wisconsin; within approximately two hours of Minneapolis/St. Paul

and/or Lake Superior. The ability to perform cesarean sections is a prerequisite for this position. Construction of a new \$2 million clinic is scheduled for mid-1990. Position offers an excellent professional environment combined with an exceptional blend of recreational, cultural, and educational opportunities. No start-up expense. Salary negotiable (\$90,000+), with outstanding fringe benefit package (includes clinic self-insured malpractice). Opportunity to practice broad spectrum family practice with on-site access to a variety of consultants and time to enjoy family and recreation. Send CV and references to: David L. Draves, Director Regional Development, 1000 North Oak Avenue, Marshfield, WI 54449 or call collect at 715/387-5376. \*1-6/90

**Licensed Consulting Psychologist** to manage an outpatient mental health clinic. Individual must have two years' postdoctorate experience and previous supervisory responsibilities. Must have diagnostic, therapy, and consultation skills. Responsibilities include departmental leadership within a managed care environment. Must be licensable in Minnesota. Please send resume to: Mac Johnston, Director, Satellite Operations, Comprehensive Medical Care, P.A., 9055 Springbrook Drive, Coon Rapids, MN 55433. \*1-6/90

**Pediatrician:** Mayo Medical Center has new position in emergency department based at Saint Marys Hospital in

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St. Cloud Medical Group, a 22 physician Multi-specialty Group, is now recruiting BC/BE physicians in the following specialties:

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## PRIMARY CARE PHYSICIANS

Ramsey Clinic, a 215-physician multi-specialty group practice operates a small network of branch clinics that extends from the Minneapolis/St. Paul metro area to rural communities in Minnesota and Wisconsin. Because of expanding practices, primary care physicians are being considered for positions at:

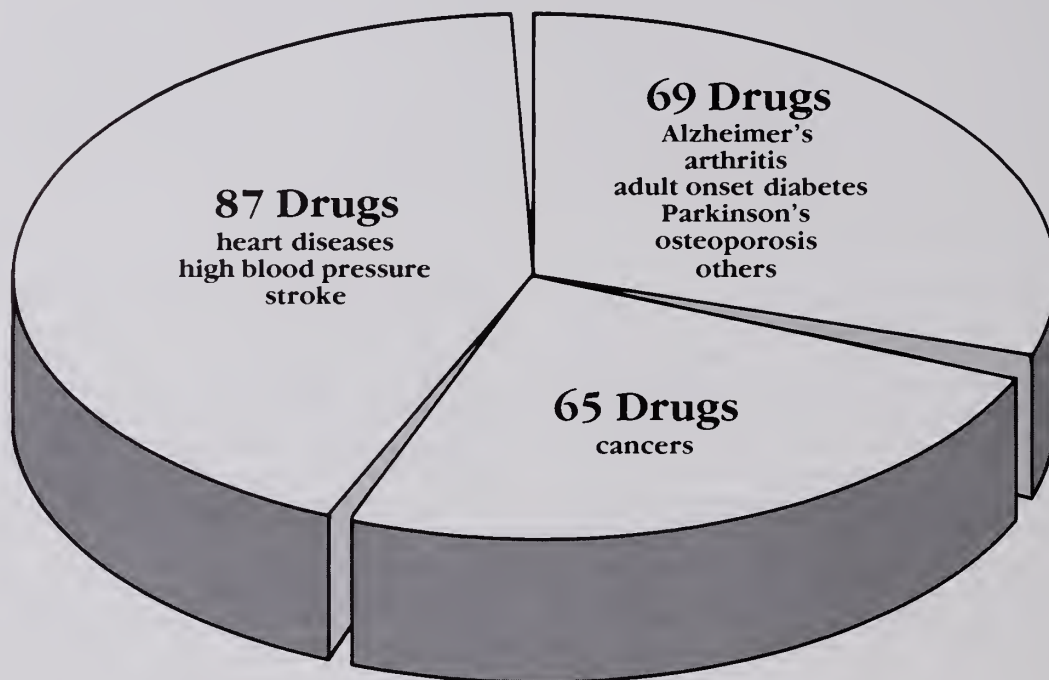
Baldwin, Wisconsin  
Rush City, Minnesota  
Osceola, Wisconsin

Physicians practicing in the branches enjoy the many advantages of membership in a large group practice and the atmosphere of a private practice clinic. The positions offer attractive salaries, complemented by an outstanding benefits package. For particulars, kindly forward your C.V. or contact: Lories A. Stoll, Director of Professional Services, Ramsey Clinic, 640 Jackson Street, St. Paul, MN 55101-2595; (612) 221-3067 or David Perry, M.D. at (612) 221-1868.

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**Rockford Memorial Hospital**, a 480-bed tertiary care hospital in Rockford, Illinois, serves an 11-county area and is seeking a neonatologist to join its staff. The hospital's level III NCU has over 500 admissions a year. Call coverage will be shared with six other neonatologists. Two perinatologists, two pediatric intensivists, and over 30 pediatricians are currently part of its active staff. An excellent first-year guarantee and benefits package are being offered. Please call: Sandra Otto at 1-800/332-0488 (1-800/236-0488 in Wisconsin) for additional information. 1-6/90

**Internal Medicine:** Upper Midwest. Fully developed internal medicine practice available at no purchase price in Upper Midwest college town with 115,000 population. 369 hospital beds and 373 SNF beds. Coverage and subspecialty backup. Free office with overhead and staff provided, malpractice, \$108,000 cash guarantee. Call: Walter F. Smith, Ph.D., 1-800/221-4762 or 212/599-6200. \*1-6/90

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**\$80,000+:** Physician needed to provide primary care in a regional treatment center that provides treatment for persons with chemical dependency/psychiatric problems and developmental disabilities. Fringes include approximately 4 weeks' vacation plus 2 weeks' CME, sick leave, paid malpractice, deferred comp to \$7,500. Limited call (every ninth to 10th night). Only 90 miles west of Minneapolis/St. Paul. Excellent schools. Call or write: Larry Olson, M.D., Medical Director, Willmar Regional Treatment Center, Box 1128, Willmar, MN 56201; 612/231-5100. EOE. \*2-7/90

**Pediatrician:** 115-physician multispecialty clinic in the Fox River Valley of northeastern Wisconsin desires a BC/BE pediatrician to join department of 17 BC/BE pediatricians.

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Roger Greenwald, Administrator or  
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(507) 625-1811



package, production incentive, if desired. Send CV to: Susan Streitz, Northland Medical Associates of Morgan Park, 1150 88th Avenue West, Duluth, MN 55808. Or call collect: 218/626-2775. \*3-8/90

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**Pediatrician** to join existing two-person practice at the 24-physician multispecialty Winona Clinic, Ltd., in Winona, Minnesota. Located in the beautiful Mississippi River Valley of southeastern Minnesota. The community, with a 40,000 population trade area, is the host of three colleges and a diverse industrial base. Send CV to: J. B. Knuesel, Administrator, Winona Clinic, Ltd., 420 East Sarnia, Winona, MN 55987. 3-8/90

**Family Practice:** Immediate opportunity for a family practitioner in southwestern Minnesota. Excellent first-year salary benefits package. Contact Gregory Campbell, Assistant Administrator, 1207 6th Avenue South, St. James, MN 56081; 507/375-3261. 3-8/90

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**Sanibel Island for Rent:** 2 BR condo, by day or week, on beautiful Sanibel Island, Florida. Home of famous wildlife refuge. Swim, shell, or just relax. Extensive bike paths, two Island golf courses. \$445 per week through 12/15/90, then \$775 per week through season. Call Toni, 612/869-1404. 7-12/90

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**Mankato Clinic, Ltd.** is seeking BE/BC physicians in the following specialties: dermatology, invasive cardiology, ob/gyn, oncology/hematology, pulmonary medicine, vascular surgery, family practice, pediatrics, and general internal medicine. The Mankato Clinic is a 43-doctor multispecialty group practice in south-central Minnesota with a trade area population of +200,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information call: Roger Greenwald, Administrator, or Dr. B. C. McGregor, 507/625-1811, or write: 501 Holly Lane, Mankato, MN 56001. (6/90-R)

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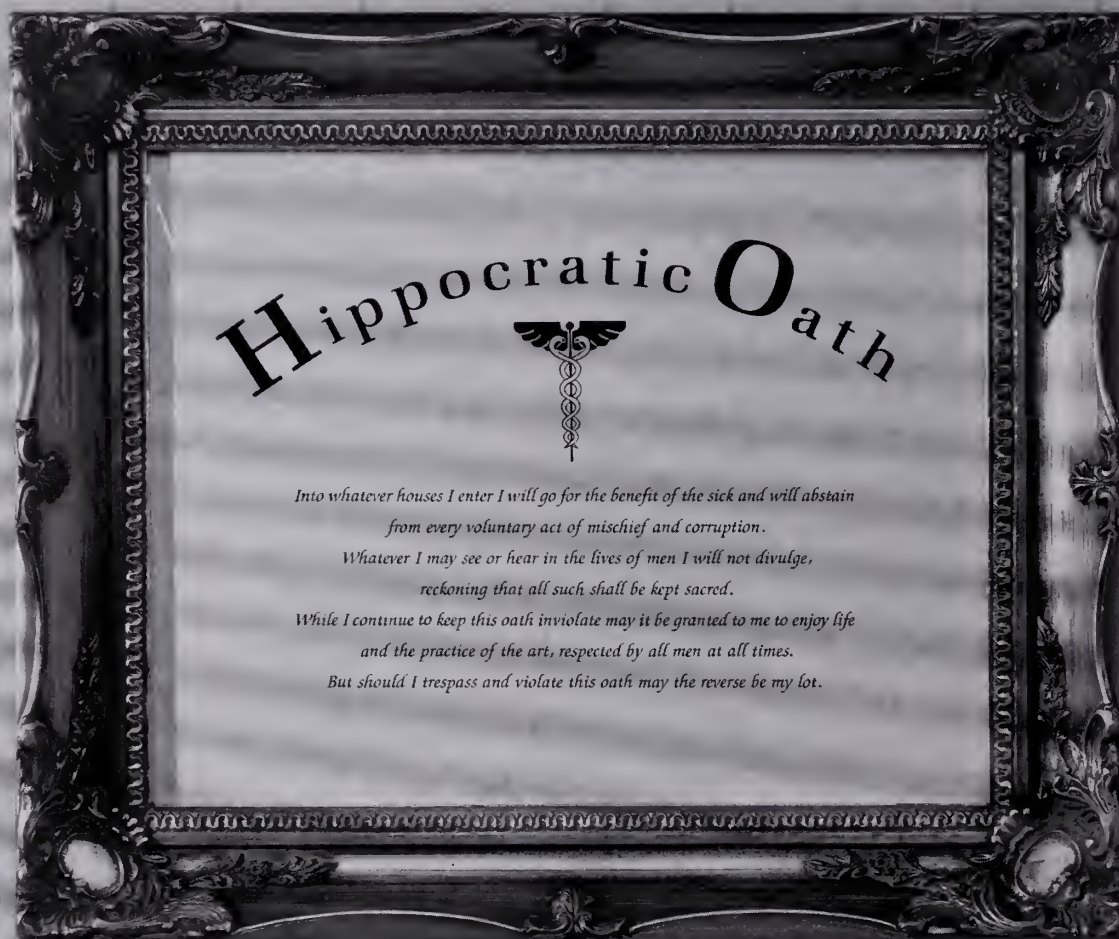
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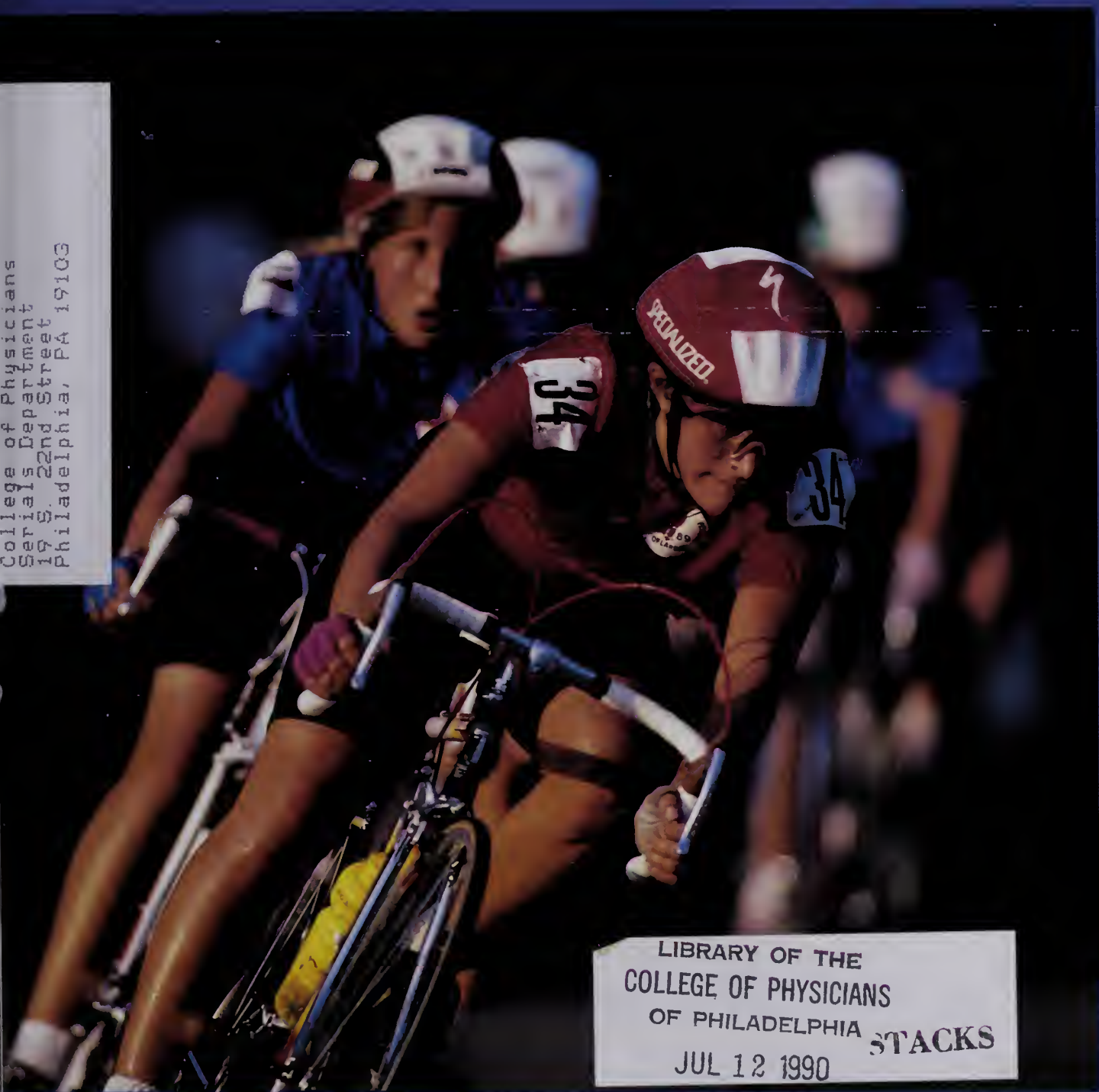
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## COVER

**Olympic Hopefuls** When the U.S. Olympic Festival comes to the Twin Cities this month, 4,000 world-class athletes will push their bodies to the limit in hopes of competing in the 1992 Olympic Games. Our cover story (p. 19) and interview (p. 9) showcase the physicians who have earned the chance to treat the thousands of ailments and injuries that occur during an Olympic Festival.

Photo of Frances Mejia (#34) leaning into a turn at last year's Olympic Festival taken by Damian Strohmeyer of All-Sport U.S.A., courtesy of the U.S. Olympic Festival-'90 Committee.

## MINNESOTA MEDICINE

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#### References

1. *USP DI Update*, September/October 1988, p 120.
2. *Br J Clin Pharmacol* 1985;20:710-713.
3. *Data on file*, Lilly Research Laboratories.
4. *Scand J Gastroenterol* 1987;22(suppl 136):61-70.
5. *Am J Gastroenterol* 1989;84:769-774.



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**Precautions:** *General*—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

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**Carcinogenesis, Mutagenesis, Impairment of Fertility**—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

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an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

**Pregnancy—Teratogenic Effects—Pregnancy Category C**—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers**—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

**Pediatric Use**—Safety and effectiveness in children have not been established.

**Use in Elderly Patients**—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

**Adverse Reactions:** Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Axid<sup>®</sup> (nizatidine, Lilly)

**Hepatic**—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

**Cardiovascular**—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

**CNS**—Rare cases of reversible mental confusion have been reported.

**Endocrine**—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

**Hematologic**—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

**Integumental**—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

**Hypersensitivity**—As with other H<sub>2</sub>-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H<sub>2</sub>-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

**Other**—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

**Overdosage:** Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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Additional information available to the profession on request.



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# ***"I didn't acquire emphysema, I inherited it"***

Dyspnea... chronic productive cough... or wheezing in patients too young for smoker's emphysema or chronic bronchitis could be due to an inherited deficiency of alpha<sub>1</sub>-antitrypsin (AAT).<sup>1</sup> Associated with panacinar emphysema, AAT deficiency may be fatal.

An estimated 40,000 Americans have AAT deficiency.<sup>2</sup> Smoking hastens the progress of the disease.

AAT deficiency is easy to diagnose. A simple blood test can show serum concentrations of AAT <35% of expected values.

Do you have patients with AAT deficiency in your practice? For more information about specific therapy for emphysema caused by AAT deficiency, please call 1-800-CUTTER-1.



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# On Medicare Market Reform and Payment Adjustments

Richard L. Reece, M.D.

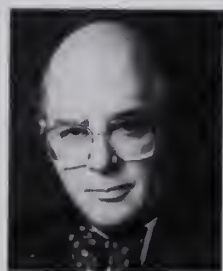
*"Philosophically, Medicare's new payment schedule will represent a major commitment to establish its prices for physicians' services administratively rather than to reduce fees established in the medical marketplace. As such, it reflects a movement—by both government and physicians' organizations—away from market principles as the favored method for allocating resources and toward government policy as the way to achieve equity among patients, payers, and providers."*

John K. Iglehart,  
"The New Law on Medicare's  
Payment to Physicians,"  
*N Engl J Med* 322:1247-1252, 1990

Minnesota physicians earn 15 to 20 percent less on average than their national colleagues and feel they have been battered too long and too painfully on both the managed care and Medicare fronts.

Now there's hope on both fronts. Managed care premiums continue to rise, HMOs and PROs are making money and returning money, and demand for family practitioners and pediatricians, particularly outside the Twin Cities, is growing. Some observers estimate that in Greater Minnesota 200 to 250 openings exist for family practitioners.

Reformers have often portrayed Minnesota as a window through which to view the competitive medical market. This has always been only partially true because Minnesota doctors, like doctors everywhere, have received 30 percent of their income from Medicare. The trouble has been that Minnesota Medicare rates, based on past fee-for-service rates, have been fixed at lower rates than on the Coasts and certain Southern cities. In essence, Minnesota



*"In essence, Minnesota physicians have been punished for their past conservative practice styles and their modest fee-for-service rates."*

physicians have been punished for their past conservative practice styles and their modest fee-for-service rates. As so often happens, the "good guys," those who practice conservatively, have lost.

The "market," as constructed by the government, has proven fundamentally flawed. In the eyes of many practitioners and Congress, these flaws have included irrational differences between urban and rural fees, between procedural and cognitive specialists, and among procedural fees in different sections of the country.

## *The Coming of Federal Reform*

To government policy-makers, "market reform," which has come in

the form of the massive Omnibus Budget Reconciliation Act of 1989, passed last December, is long overdue.

When it comes to medical care, U.S. government officials, although they pay lip service to competitive market reform, have long distrusted the foibles of the market. This distrust comes naturally. These officials, after all, represent bureaucrats who are responsible for the fourth largest budget in the world—after the budgets of the United States, the Soviet Union, and Japan.

Physicians, too, have shared distrust of the market. From physicians' point of view, many of the sources of their discontent—interference in their practices by managed care organizations, meddling by government into fees, generalized uncertainty because of competition, and even the malpractice pall—have been brought about by exaggerated and unrealistic market responses.

## *Reasons for Market Distrust*

Various reasons exist for this mutual distrust:

- Competitive market reform, i.e., HMOs, PPOs, and managed indemnity care plans, have failed as a mechanism to contain costs.
- Medical care is not a perfect market, because those who provide care have more knowledge and authority than those who receive care.
- Medical care can be a matter of life and death, and market forces may neglect the have-nots, the sick, and the elderly. No one should be left to die on the streets.
- Medical care is a perceived "right," and, therefore, the government should reserve the right to allocate care.
- The market is a cruel and fragment-



ing taskmaster and may result in the closure of inefficient hospitals or the bankruptcy or destitution of inefficient physicians.

- The market is unreliable in the sense that it reflects what the public wants rather than what policy-makers say the public needs.
- The market may create an unequal demand for services with disproportionate profits flowing to hospitals and physicians.
- Making the market work requires politically unpopular decisions, i.e., shifting true costs to the public—decisions politicians are unwilling to make.

### *Making the Market Work*

To make the American health care market work, i.e., to curtail demand for medical services, one would have to return price sensitivity to patients by eliminating first-dollar coverage. As we have learned from the wave of recent strikes over various managements' attempts to eliminate first-dollar coverage, thereby shifting price responsibility to health consumers, this is highly unpopular. You could also remove all tax subsidies for private health insurance. But this step, too, would be unpopular and probably politically impossible.

Since we Americans find it politically suicidal to control demand by consumers, we have resorted to controlling suppliers of care. This is politically simpler to carry out, since the main suppliers of care, hospitals and physicians, represent a small proportion of voters.

### *Two Methods of Controlling Costs*

Here is how St. Paul's Robert Geist, M.D., chair of the Minnesota Medical Association's Committee on Ethics and Medical-Legal Affairs, explains how we have bypassed the market to reduce the supply of services: "The costs of health care can be controlled in two basic ways: 1) Supply can be curtailed by limiting utilization and services covered by insurances, either through government regulation or the profit motives of free enterprise, or 2) demand can be curtailed by returning price sensi-

tivity to patients for first-dollar coverage.

"Curtailling supplies is the basic means now being used to control costs. Governmental regulation to curtail supplies includes paying PROs for policing regulations, freezing and mandating limits on physicians' fees, imposing DRGs on hospitals, creating expenditure targets, and redefining insurance benefits. Policy-makers believe that supplies can be curtailed through these government regulations and by transferring the risk of insuring and rationing care to providers in managed care plans."

### *The Past Six Years in Congress*

For the last six years, Congress has concentrated on reforming the medical market by rationalizing physician payments through Medicare. During those six years, Congress has approved a number of actions to reduce Medicare spending to doctors. These actions have included freezing physicians' fees for two years, reducing payments for so-called overpriced procedures, and limiting the ability of physicians to charge for the differ-

ence between submitted charges and those allowed by Medicare. These actions, plus additional measures to suppress the total volume of procedures, to set the standards for care, and to measure the outcomes of clinical care, were signed into law in the Omnibus Budget Reconciliation Act of 1989 by President Bush on December 19, 1989.

### *Consequences of the Budget Act*

As a consequence of this new law and its new fee schedule, average payments to various physician specialties are predicted to change by the percentages listed in Table 1.

### *Geographic Adjustments*

For a number of years now, it has been recognized that Medicare payments in different geographic regions have been inequitable. These inequities have existed because Medicare

Table 1

#### *Average payments to physician specialties under the new Medicare fee schedule<sup>1</sup>*

| Specialty                 | Percentage Change |
|---------------------------|-------------------|
| Family practice           | +37%              |
| Internal medicine         | +16%              |
| Otolaryngology            | +7%               |
| Obstetrics and gynecology | +1%               |
| Pathology                 | -25%              |
| Radiology                 | -21%              |
| Thoracic surgery          | -20%              |
| Ophthalmology             | -17%              |
| Orthopedic surgery        | -10%              |
| General surgery           | -9%               |
| Urology                   | -3%               |

Table 2

#### *Projected changes in average Medicare reimbursement<sup>1</sup>*

| Locale                                      | Percentage Change |
|---------------------------------------------|-------------------|
| <b>Greatest Losses</b>                      |                   |
| Manhattan Island                            | -29%              |
| Alaska                                      | -22%              |
| Rural Nevada                                | -18%              |
| Three sections of Los Angeles               | -18%, -17%, -15%  |
| Laredo and Galveston                        | -17%              |
| Hawaii                                      | -16%              |
| Miami                                       | -15%              |
| Southern Maine                              | -15%              |
| <b>Greatest Gains</b>                       |                   |
| Southern Minnesota                          | +27%              |
| Jefferson County, Missouri                  | +27%              |
| New Hampshire                               | +26%              |
| Kansas City, Missouri, and Urbana, Illinois | +21%              |
| North-central Iowa                          | +20%              |

Table 3

*Changes in medical payments by geographic areas*

| Size Market                          | Percentage Change by Specialty |          |                |
|--------------------------------------|--------------------------------|----------|----------------|
|                                      | Medical                        | Surgical | All Physicians |
| Large metropolitan (> 3 million)     | +10%                           | -15%     | -4%            |
| Mid-sized metropolitan (1-3 million) | +14%                           | -14%     | -5%            |
| Small metropolitan (< 1 million)     | +22%                           | -9%      | +1%            |
| Large rural county (> 25,000)        | +28%                           | -5%      | +12%           |
| Small rural county (< 25,000)        | +34%                           | -8%      | +13%           |

Source: Physician payment review simulations.<sup>2</sup>

Table 4

*Changes in Medicare payments by CPT code*

| CPT Code          | Service                      | Percentage Change |
|-------------------|------------------------------|-------------------|
| Visits in general | visit services               | +28%              |
| 27130             | total hip replacement        | -17%              |
| 27244             | repair femur fracture        | -7%               |
| 33207             | insertion of heart pacemaker | -36%              |
| 33512             | coronary artery bypass graft | -27%              |
| 35301             | reconstruct artery, neck     | -26%              |
| 44140             | partial colon removal        | -14%              |
| 45385             | colonoscopy to remove lesion | -29%              |
| 49505             | repair inguinal hernia       | -29%              |
| 52601             | prostatectomy (TUR)          | -17%              |
| 66984             | remove cataract, insert lens | -19%              |
| 93000             | electrocardiogram            | -27%              |
| 93503             | right heart catheterization  | -31%              |

Source: Physician payment review simulations.<sup>2</sup>

rates were based on traditional fee-for-service differences in varying parts of the country—differences that no longer reflected cost of living or operative procedural differences in various parts of the country.

Table 2 shows sections of the country that will experience the greatest losses and the greatest increases in average Medicare reimbursement.

In general, physicians who practice in large metropolitan areas have the most to lose, those who practice

in rural regions will gain the most, and primary care physicians will profit more than those in surgical specialties (Table 3).

Finally, changes will occur in payment for various procedures. In general, payments for office visits will be increased and those for procedures will be reduced (Table 4).

These new fee schedules are to take place by January 1, 1992, and will be phased in over a five-year period. There will also be an adjust-

ment developed to cover the cost of professional liability insurance, as well as a "conversion factor" that will transform RBRVS into a schedule of dollar payments for each service.

And so the march toward the government's micromanagement of physicians' fees has been launched. It is important to note that national primary care physician organizations—the American Academy of Family Physicians, the American College of Physicians, and the American Society of Internal Medicine—have lobbied long and aggressively for these reforms, and the AMA carried out its own strong lobbying efforts to assure the passage of these reforms.

A new era of physician payment has been born. How this new "rational" form of payment will affect payment relationships between private insurance companies and physicians remains to be worked out. But it is already clear that insurance companies are concerned physicians might charge private patients more to compensate for reduced government payments. Hospitals, too, are concerned lest physicians set up their own competing independent centers to compensate for lost incomes.

No one knows for sure what will happen, but the next five years, as RBRVS is phased in, promise to be a long hot summer for everybody in the socioeconomic sauna of health care.

MM

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# Treating Timberwolves, Vikings, Olympic Hopefuls, and Recreational Athletes

*Minnesota Medicine interviews David A. Fischer, M.D.*

**E**very once in a while, I meet people who appear to be fulfilling their childhood fantasies and loving every minute of their careers. It's too bad all of us can't achieve such bliss, but if your aim is to be a doctor for top athletic teams, you've got to be realistic: there are only so many teams for just so many doctors.

David Fischer, M.D., an orthopedic surgeon who loves sports, grew up to be exactly what he wanted to be as a boy—a doctor who treats athletes. His career vision was formed when a Minneapolis orthopedic surgeon treated Dave's shoulder injury while the young Fischer was a high school athlete.

From then on, Fischer pursued a linear course through college, medical school, and orthopedic residency toward his ultimate ambition of becoming an orthopedic surgeon and a team physician. He is now on the field for every Minnesota Vikings game and on the court for every Minnesota Timberwolves game. He has also risen in the ranks among physicians contending to treat U.S. Olympic athletes in 1992. He will direct the local medical facilities for the U.S. Olympic Festival, to be held in the Twin Cities this July 6 through 15.

Dave Fischer, a partner in Orthopaedic Consultants, P.A., has also had the good fortune to practice his sports medicine specialty during America's fitness revolution, which has resulted in millions of Americans walking, jogging, running, biking, lifting, or whatever else needs to be done to achieve aerobic conditioning or to resculpt the body.

Fischer is a tall, sinewy, open man, a kind of blond Viking with a strong handshake. He relishes talking about what he does. His tone is modest, off-hand, and practical. Beneath the surface, you sense he enjoys associating with professional and world-class amateur athletes, and he enormously admires their skills and achievements.

**Minnesota Medicine:** Dr. Fischer, describe your background. Where were you educated, and how did you

come to be an orthopedic surgeon?

**Fischer:** I'm from Warren, Minnesota, up in the northwest corner of the state in the Red River Valley. Like a lot of professionals, I had an early encounter with someone in the field who impressed me. I got to know Twin Cities orthopedic surgeon Paul Gustafson very well when I injured my shoulder in high school. Based on my friendship with Paul, I set my course on becoming an orthopedic surgeon specializing in sports medicine.

**Minnesota Medicine:** Were you a high school or college athlete?

**Fischer:** A high school athlete. I didn't play college sports, but I enjoyed basketball and football.

**Minnesota Medicine:** As I entered your place of practice, Braemar Sports Medicine Center, I saw a number of plaques on the walls. These included plaques for the University of Minnesota football team, the Minnesota State High School League, the University of Minnesota Women's Athletics, the Minnesota Timberwolves, the Minnesota Twins, the Minnesota Vikings, and the U.S. Olympic Festival. What are your connections with

these various organizations?

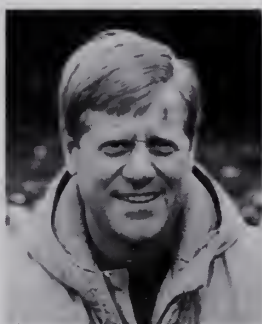
**Fischer:** Physicians in this facility, my partners in Orthopaedic Consultants, as well as other family physicians here, all have affiliations with these teams and organizations. We're proud of those affiliations, and we display the organizations' logos.

## *Treating Point Guards and Nose Guards*

**Minnesota Medicine:** With what teams are you personally involved?

**Fischer:** I serve as a team physician and orthopedic surgeon to the Minnesota Vikings and the Minnesota Timberwolves.

**Minnesota Medicine:** How long have you been doing this?



David A. Fischer, M.D.

“Sports medicine is still in its infancy in terms of its knowledge and its capabilities.”



Fischer: I have worked with the Vikings for nine years, and, of course, we just had our first year with the Timberwolves.

Minnesota Medicine: I know the Timberwolves won 22 games, more than any other expansion team, and set an attendance record in the process. Any injuries this year?

Fischer: We had a few, but, fortunately, the injuries didn't prevent the players from continuing to play.

Minnesota Medicine: Are basketball injuries different from football injuries?

Fischer: Oh, yes, they are different. Basketball players wouldn't like it if I called basketball a non-contact game, especially those players who jockey for position around the lane and who fight for rebounds. But intentionally throwing your body into somebody as hard as you can isn't a part of basketball. The injuries tend to be more related to overuse rather than to trauma. Plus, the basketball itself causes quite a number of finger injuries.

Minnesota Medicine: What about football? Did the Vikings have a good injury season?

Fischer: We had a very fortunate injury year with the Vikings.

Minnesota Medicine: How does artificial turf affect injuries?

Fischer: Our injury patterns haven't shown injuries to be more serious on artificial turf than on grass, but we all believe artificial turf is a more dangerous surface to play on, because the speed of the game on turf is greater. Velocities are so high that the energy involved in impact is greater, and the recovery time is longer. You have to be well to play on artificial turf.

Minnesota Medicine: Do you attend all the Vikings games at home, in other American cities, and abroad?

Fischer: Yes, I do.

### *Sports Medicine's Track Record*

Minnesota Medicine: Has sports medicine been growing as a specialty since you've entered the field? Has it come into its own?

Fischer: I've been involved in sports medicine for more than 10 years, and I've witnessed a great surge of interest and knowledge in the field during that time, particularly over the last five years. Much of this interest is due to the arthroscope, which for the first time enabled physicians to see the interior of a joint. The arthroscope has stimulated a lot of research and better medicine. Sports medicine is still in its infancy in terms of its knowledge and its capabilities, but it's a very exciting field, because most of us enjoy working with active people.

Minnesota Medicine: Sports medicine has become a bona fide specialty of orthopedic surgery, hasn't it?

Fischer: I think it has, and it's still in a period of rapid growth. We've learned that people can still function

while they are recovering from injury. I believe if we could apply what we learn in sports medicine to the workplace, work might be as rewarding as sports. When a professional player is hurt playing, he or she stays with the team. But with a workers' compensation-related injury, the worker is removed from the workplace. Maybe a player can't play for a while, but we try to keep that person on the team. That's the rewarding part of sports. It's a part I wish we could handle effectively in the workplace.

Minnesota Medicine: Are you optimistic about the specialty of orthopedic surgery itself?

Fischer: I certainly am. Orthopedic surgeons I work with and know in Minnesota are busy and seem to enjoy their work. Orthopedics is very much alive and exciting. There's a lot of new and important work going on in joint replacement, spine surgery, and fractures, for instance.

We have some frustrations, but they are largely related to paperwork and restrictions on decision making. In some ways the frustrations are greater for the administrative and secretarial staff, because they have to keep all these rules and regulations and paperwork in mind to do their work.

### *Sports Medicine's Patient Mix*

Minnesota Medicine: Describe for us your practice of orthopedic surgery. How much of your practice is sports medicine?

Fischer: About 75 percent of my patient load is sports medicine, which I define as injuries and illnesses directly related to recreation. Most patients aren't world-class or professional athletes. It's unusual for a great athlete to be hurt. Most of my patients are recreational athletes, whether they are child athletes, high school athletes, college athletes, or senior citizens, such as golfers or joggers. The other 25 percent of my practice is general orthopedics, fractures in particular. I enjoy a cross-section of orthopedics, and I wouldn't want to become so specialized that I wouldn't see a patient with a general orthopedic problem.

Minnesota Medicine: In a sense, you see the casualties of the fitness revolution, don't you?

Fischer: Yes, the excesses of the fitness revolution.

Minnesota Medicine: What about runners? What are the common injuries for recreational runners?

Fischer: Recreational runners have mostly lower extremity problems—painful knees, painful feet, shin splints, soft-tissue overuse syndromes, tendonitis around the knee, Achilles tendonitis—the kind of injuries caused by thousands and thousands of repetitions rather than one single overload.

Minnesota Medicine: By the very nature of your own work, I would gather that your patients are largely non-Medicare.

Fischer: That's right. I have a skewed patient population.

I see a relatively small number of Medicare patients. With the exception of patients needing knee joint replacement surgery, my work revolves around accidents that are usually not work related. In many ways, I'm treating injuries that aren't as acute as others.

### *The Braemar Sports Medicine Center*

**Minnesota Medicine:** The Braemar Sports Medicine Center is certainly a handsome facility. Could you tell me about the history and scope of this enterprise and how many physicians you have?

**Fischer:** The Braemar Sports Medicine Center was established about four years ago in an attempt to combine the elements of sports medicine in one building. We wanted to have family practitioners, orthopedic surgeons, physical therapists, and sports physiologists working together in one facility. When we work with each other, we all have more fun, and we get more work done. Ultimately, patients benefit. This entire facility was a cooperative effort of three corporations—Orthopaedic Consultants, Family Physicians, P.A., and the Institute of Athletic Medicine, a Fairview Hospital corporate division. We work together in the same building collaborating on conferences and planning, so each organization is responsible for its own components and its own personnel. There are six orthopedic surgeons who work here regularly. Our practices are primarily sports related, and we work with the teams whose plaques you saw in front.

**Minnesota Medicine:** How do the family practitioners and orthopedic surgeons work together? What is their common interest?

**Fischer:** Orthopedists, including those who serve as team physicians, often need general medical help. In turn, family practitioners may be more important to some sports. Quick "curbside consultations" with the athletes present are fun, educational, and beneficial to the athlete. It's a delight to have family physicians here who are familiar with athletes and enjoy treating them.

### *The U.S. Olympic Festival*

**Minnesota Medicine:** From July 6 through 15 the Twin Cities will be host to the U.S. Olympic Festival. I know that's uppermost in your mind. What is your role in the festival?

**Fischer:** I'm serving as the medical director for the local medical facilities for that meet. My primary responsibility for the Olympic Festival is to organize the spectator care at all the venues and to provide a basic framework for athlete care. The U.S. Olympic Committee (USOC) selects the physicians and trainers who will be responsible for athlete care (see cover story, page 19). The role

of the local medical director is to see to it that the needed facilities and the subspecialists are available during the festival.

**Minnesota Medicine:** How do you prepare for the Olympic Festival?

**Fischer:** Fortunately, many of the sites that will be used for the Olympic Festival—the Metrodome, the university facilities—have handled large crowds, so the spectator care in those arenas is largely in place, and it's simply a matter of tailoring those care systems to meet Olympic Festival specifications. The St. Paul Red Cross, which is providing first aid for spectators at the event sites, has marvelous organizational skills and resources.

I should describe the USOC's preparations to care for its athletes. Last summer I served as one of the staff physicians at the U.S. Olympic Festival in Oklahoma City. The USOC has a very well-outlined selection process for its medical personnel—physicians' names aren't just drawn out of a hat or selected politically. If a physician wants to be involved in USOC events, whether it's an Olympic Festival or even an international event, he or she begins by filing an application with the USOC.

The USOC has a volunteer physician program. From the applicants, the committee selects physicians to go to Colorado Springs for a two-week training period during which the physician works with the permanent USOC staff and other volunteer physicians and athletic trainers. He or she participates in the care of the athletes at the Colorado Springs training center and is evaluated. Based on those evaluations, physicians may be invited to participate in future events. The committee may ask you to work at an Olympic Festival. Then, gradually, you go through a process that, ideally, would culminate in an Olympiad.

The pyramid gets very narrow at the top. For example, the Twin Cities Olympic Festival will probably have 13 to 15 physicians for more than 4,000 athletes. The physicians work very hard. This isn't a high-five experience for the physicians and the athletes. It's a lot of work, but it's very rewarding if you enjoy the athletes and you enjoy sports medicine. Athletic trainers go through a similar selection and training process.

**Minnesota Medicine:** What's the purpose of the U.S. Olympic Festival?

**Fischer:** The purpose of the festival is to give our world-class and developing world-class athletes an opportunity to compete in an international setting. The festival has the same events as the summer Olympic Games, plus some of the winter ice events. It has the same intensity as the Olympics. The Olympic Festival is held during each of the three years between Olympic Games. Whether the festival serves as a selection process for athletes to go to the Olympics depends on the individual sports and the

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“It's a lot of work,  
but it's very  
rewarding if you  
enjoy the athletes and  
you enjoy sports  
medicine.”



year of the event. This is 1990, two years away from the 1992 Olympics in Barcelona.

In this festival we'll see some current international athletes with Olympic experience and some newcomers. You'll recognize a lot of the names two years from now.

**Minnesota Medicine:** The Olympic Festival is a big event, isn't it? I was told that there may be 700,000 people attending the various events.

**Fischer:** Yes, this will be the largest single sports event in the country in terms of number of athletes, sports, and spectators.

This year's festival will be an extraordinary, once-in-a-lifetime opportunity for people in this area of the country to see the finest amateur athletes in the United States. Spectators will see an astonishing diversity of sports, including the equestrian events, shooting events, archery, and other lesser-known sports. I hope everyone takes advantage of this festival. The skill level in professional sport is extremely high, but, in my opinion, nothing compares with the excitement of amateur sport and the effort the athletes give. It's a once-in-a-lifetime opportunity for many of these athletes, as well. They'll give 100 percent.

MM

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# Their Wounds and Ours

## *Commencement Address*

*University of Minnesota Medical School, June 1990*

*David Hilfiker, M.D.*

I feel extraordinarily privileged to celebrate with you today. I stood here 16 years ago to receive my own degree and can yet remember the honor of matriculating into the profession of medicine. Not infrequently—perhaps at some quiet moment in the examining room—I still feel the awesome privilege of the healer: We are trusted with the darkest secrets, offered the deepest pain and the richest joy, allowed to share in the times of greatest mystery. We are given the opportunity to offer the gift of healing to another, and there could be no greater glory. Albert Schweitzer said somewhere that “the only ones among you who will be really happy are those who have sought and found how to serve.” I welcome you into a profession that gives you the occasion as perhaps no other does.

But all is not well in our profession. In a Gallup survey commissioned by the American Medical Association last year, almost 40 percent of the doctors interviewed said they would not enter medical school if they had a career choice to make again. Doctors complain that medicine is being overwhelmed by government and third-party interference; patients complain that doctors are too specialized, do not spend enough time with them, and are interested only in money; doctors mourn the loss of trust between patient and physician as symbolized by a malpractice mess that has already damaged medicine irrevocably.

You who are graduating today may remember that you came to medicine because you wanted to help people, to be of service; yet we practicing physicians too frequently find ourselves enmeshed in work that does not seem so rewarding as we thought, involved in a profession in which power, prestige, and money often seem to be the dominant concerns. We find ourselves alienated from our patients and peers. Too often we sense that the ideals with which we came to medicine were lost somewhere along the way, and we are not quite sure how to get them back.

We are not alone. This is a time in our history when a certain cynicism infects not only medicine but the wider society as well. As affluent Americans, for instance, our standard of living depends on consuming more than the earth can afford to lose; our standard of living depends on literally strangling our environment, yet we seem unwilling even to recognize our complicity, much less to

take the hard steps to do something about it. Such blindness breeds cynicism.

Economically, we have just finished a decade of extraordinary selfishness. It is doubtful that our economy will be able to sustain the aftermath of a national debt out of control, the shenanigans on Wall Street and in the savings and loans, and the increasing dominance of foreign investment, yet our collective insanity in refusing to invest in our future through taxes makes resolution of this crisis a pipe dream. Such neglect breeds cynicism.

But perhaps the greatest source of our cultural cynicism and self-doubt results from our surrender to economic injustice—from the oppression of the poor.

Seven years ago I moved from a rural family practice in Grand Marais, Minnesota, into the inner city of Washington, D.C. I have been deeply affected by what I have seen there. In Washington I work at Community of Hope, a small clinic for indigent patients, and at Christ House, a 34-bed medical recovery shelter for homeless men who are too ill to be on the streets, yet not ill enough to be in the hospital.

Several weeks ago we welcomed 24-year-old Herman Young into Christ House. Herman had recently been discharged from Washington's public hospital to the large city shelter downtown after a diagnosis of AIDS. . . well not exactly AIDS; although his immune system was severely compromised, he didn't meet the case definition of AIDS because he had not yet had the required opportunistic infections. Nevertheless, he had painful boils over his trunk and face, and even a few hours of normal activity exhausted him. But because he did not meet the case definition for AIDS, he was not eligible for Social Security disability; and because he did not have Social Security disability, he was not eligible for Medicaid. The hospital, therefore, could not afford to keep him. Now, it might be reasonable and humane to send a constantly exhausted man with boils and an immune system incapable of fighting infection home to a clean bungalow in the suburbs, attended by family; it is not humane to send him to a shelter of 1,400 homeless people, living eight and 10 to a room, where tuberculosis and other infectious diseases are common.

Like any doctor, I see a lot of tragedy, but there is something especially awful about a people who have

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“Medicine is a  
mystery, and it heals  
not only the patient  
but also the  
practitioner.”



been abandoned. There has always been poverty in this country, of course, but until very recently we considered its eradication fundamental to the survival of our democracy. That has changed. As a society, we no longer believe that we can afford to lift people out of poverty; we've given up hope of providing them access to adequate housing, medical care, or even livelihood. Today—in part because of the seeming hopelessness of the situation, in part because the tragedy of the poor has become an acceptable price for the affluence of the rest of us—we have decided that certain people will simply have to fend for themselves.

At our clinic we see children from very poor families. Michael is a five-year-old with severe asthma. His mother, Mary, is a bright young woman addicted to cocaine. Mary and Michael live with an aunt who—because she is already taking care of her own granddaughter—is unwilling to assume responsibility for Michael. But Mary frequently and without warning disappears from home for days at a time, abandoning Michael to this aunt who will not get involved with medication dosage. Not only does Michael get his medicines erratically, but Mary will not even be honest with me about what he has and hasn't received; perhaps she doesn't really know. So when Michael comes in, as he frequently does, wheezing and short of breath, there is simply no way to know whether he needs a change in dosage or simply needs to take what has already been prescribed. Mary is a neglectful mother and Michael needs protective care, but in the District, we have found protective services for children unavailable unless the signs of abuse are extreme. Despite our appeals, Mary is allowed to neglect her son, and a generational cycle of vicious poverty and brokenness continues.

When I first came to Washington, I tended to blame individuals for these tragedies—the hospital doctors who discharged homeless patients before they were ready, the protective service workers who refused to get involved, the drug-addicted mothers. But each of them has also fallen victim to a society that refuses to allocate resources to take care of those who cannot make it in our competitive culture. The doctors at the public hospital are overwhelmed with sick patients and must discharge a man sick with HIV infection and boils if they are to

make room for the next man with AIDS and severe pneumonia. The social worker from whom we tried to get protection for Michael already had a case load of 80 other children, some of them severely physically abused, and she simply did not have the resources to help Michael. And Mary grew up abused and broken herself, unable to be a mother.

Half of all black children in our country live in homes where the income level is below the poverty line. There is no affordable housing for poor people. Families with small children constitute almost half the homeless population in Washington. No one is even proposing a plan that might make it possible for these families to climb out of their desperate situations. And the environment in which these children live—the poor schools, the drug-ridden neighborhoods, the lack of hope—is creating a generation of young people who will be unemployable when they become adults.

The reality of the inner city is that we as a society are choosing to let people go, to allow them to sink or swim on their own. By and large, they are sinking.

It may seem inappropriate to you that I bring the pain of the poor or that I raise the pain of our culture into this time of celebration. But medicine is a mystery, and it heals not only the patient but also the practitioner. We physicians have been given the gift of healing even the wider social fabric. But the prerequisite for healing is a proper diagnosis, and the fundamental cultural illness today is an extraordinary injustice that both crushes the poor and creates a profound cynicism among the rest of us. There is a direct connection between the pain of the poor and the malaise of the affluent; only through their healing will we find our own.

Over the past several years I have been privileged to work with a number of homeless men with AIDS. I have been deeply touched by the transformation I have seen occur in some of these men as they have struggled with their disease. Henry, for instance, was a severe alcoholic, subsisting on the streets for many years. In December we discovered he had AIDS, and he came to Christ House—cachectic, withdrawn, and depressed. Once sober, he had to face the deep pain in his life: his diagnosis, the wasted years, the uncertain future.

But among the poor there is frequently an awe-



ILLUSTRATION BY LINDA FRICHTTEL

inspiring resilience—a willingness to accept the pain and an ability to embrace the darkness. Henry stopped drinking, attended AA, and began to face his illness. We first noticed the change when he started caring for an older roommate, terminally ill from cancer. Henry would sit for hours, holding the dying man's hand, just being with him. Perhaps he would go out and bring back a cup of ice cream as a gift. Soon he was visiting other men from Christ House who had been admitted to area hospitals, providing a presence to those who—like him—were dying. He once told me that, in a way, AIDS was the best thing that had happened to him, because it had allowed him to confront the wasted years and to begin again. There is a quiet radiance about him that reveals to others his new-found peace and joy.

Henry has much to teach us. He can teach us that the darkness in our own souls and in our society must be confronted and that we must become servants to our brothers and sisters. There is an extraordinary illusion prevalent today that we can find happiness and fulfillment in the pursuit of money, power, and prestige. Can we begin to look at the possibility that it is precisely our wealth and our positions of power and prestige that isolate us? Perhaps we are dissatisfied with our work because we have forgotten how to be servants. Is it possible that our excessive incomes, our difficulty in

receiving the poor into our practices, and our participation in a system that oppresses the poor are part of the source of our deeper suffering? Can we examine the possibility that we become fully human by embracing the pain of the wounded and becoming servants to one another?

You graduates begin residency training in one month. It will be an overwhelming experience. You will know much pain—both your patients' and your own. It will be difficult to remember that the real joy of medicine comes from taking on the pain, not protecting ourselves from it. This profession you enter today offers you the remarkable role of healer and servant. Your patients will come to you in extraordinary vulnerability. Your community has given you the privilege of a medical education. As Schweitzer said, your task is to seek and find how to serve. It is the servant nature of our profession that will be deeply healing for you, its future practitioners. **MM**

*David Hilfiker is a 1974 graduate of the university's medical school and author of the book *Healing the Wounds*, which won acclaim for its examination of the stresses and contradictions inherent in the practice of medicine. He is now a family physician at Community of Hope and Christ House, Washington, D.C., clinics that provide care for the indigent.*

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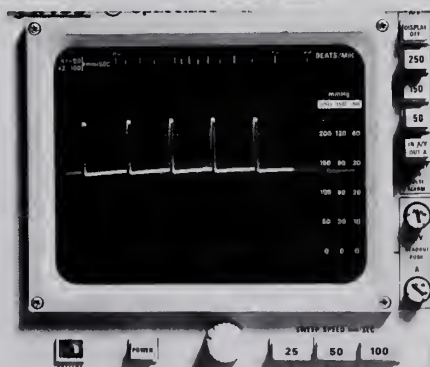
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# OLYMPIC

*Physicians*  
*Go All Out* **HOPEFULS**  
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When 4,000 of this country's best amateur athletes converge on the Twin Cities this month for the 1990 Olympic Festival, spectators are likely to see only the athletes pushing themselves to the limit, giving breathtaking sports performances. What they may not realize is that behind the scenes is a small, select group of physicians and trainers who work nearly as feverishly and push themselves almost as hard to see that these athletes compete safely.



This year, that select group consists of 13 physicians—seven orthopedists, five family practitioners, and one cardiologist—who will treat the typical lineup of sports injuries that occur at an event of this size: sprains, fractures, concussions, lacerations, abrasions. They'll also treat general medical illnesses such as colds, sore throats, flu, diarrhea, and eye, ear, and sinus infections. They'll put in 14-hour workdays, catch what little sleep they can in college dormitories, and eat in cafeterias. They'll leave the Twin Cities without ever having seen the Guthrie, Ordway Music hall, or Fort Snelling. In fact, few of them will have seen much of the competition itself.

*Debra Giel Adams*



**W**hy do they do it? What motivates otherwise rational physicians to leave lucrative practices and donate up to three weeks of their time in this manner? "There's something magical about the five rings," said Deborah U. Waters, M.D., chief medical officer at the U.S. Olympic Committee (USOC) in Colorado Springs. "Nothing else comes close to it. It's one of those patriotic, apple pie, Disney World kind of dreams that a lot of people have and would like to be a part of."

David A. Fischer, M.D., was part of that "five-ring magic" at the Olympic Festival in Oklahoma City last year (see "Face to Face" interview, page 9). He got involved because he finds it exciting to work with amateur athletes who put 100 percent into what they do. "Athletes at this level are unbelievably good—they don't save anything for tomorrow," said Fischer, an orthopedic surgeon with Orthopaedic Consultants, P.A., in Minneapolis, and a staff member at the Braemar Sports Medicine Center. "You have no idea how skilled they are until you see this level of competition."

### Getting Selected

Years ago, most physicians had only the slimmest chance of joining the Olympic medical team. Members were chosen through a highly political, good-old-boy network. The same physicians would appear, year after year, at all Olympic events. But that practice was disbanded in 1977, when the Volunteer Physician Program was put in place. Though fairness and equity now characterize the process, it remains highly competitive. Nationwide, hundreds of physicians wait years to be chosen for these much-coveted spots.

What happens is this: Physicians first file an application with the USOC. The most important qualification they must have at this stage is five years of sports medicine experience. The volunteer program, USOC officials emphasize, should not be confused with a fellowship program in sports medicine. "We're not in the teaching business," said Bob Beeten, a certified athletic trainer and manager of clinical services at the USOC. "It's not our job to train physicians in sports medicine. It's our job to find the best physicians possible to care for

our athletes."

How one defines sports medicine "experience" is also important. Seeing injured athletes in the office or doing yearly football physicals simply isn't enough. "Applicants almost have to have been a team physician, or we find that they're not very comfortable working in the Olympic environment," said Beeten.

Those who pass muster at the application stage are placed on a waiting list. Five-year waits are the norm for

orthopedic surgeons; two-year waits are typical for family practice physicians. Fischer, for example, was on a waiting list for five years. "The good news is, that's good for us," said Beeten. "It means we have hundreds of qualified applicants to choose from. The bad news is that physicians have to wait longer than they'd like—but we find out if they have patience."

All physicians, no matter what their specialty, are welcome to apply. In general, orthopedic surgeons and family practitioners are more likely to have the requisite sports medicine experience. Over the years, Beeten has observed that the most successful volunteers have been orthopedic surgeons who do good general medical work, and family practice or

emergency medicine physicians who have covered team sports.

A high level of comfort with general medicine is critical. "Being a super-superspecialist with a narrow focus doesn't help us much," said Waters. "We need people who can work in a M.A.S.H. type of situation where they may be asked to do a lot of different things. An orthopedic surgeon may be asked to look at a sore throat, or a pediatrician to apply a cast."

Physicians on the waiting list are eventually invited to attend a training session at one of the USOC's two training centers in Colorado Springs or Lake Placid, New York. There, physicians are assigned to one or more teams that are training on campus at the time. If they do well in this setting, they're invited to cover an Olympic Festival. If their performance is sufficiently impressive at the festival, they may be asked to cover an international event—either the World University Games or the Pan



American Games.

It's a series of steps upward, with the final step being a chance to cover the summer or winter Olympic Games. That carrot is dangled before all physicians who become involved in the volunteer program.

### *Who Makes the Grade?*

The USOC staff starts to find out just how good physicians are at the training center. But the real testing ground is an Olympic Festival. Sometimes physicians will weed themselves out. Now and again, a physician who is invited to an Olympic training center might say, "This isn't my cup of tea," and drop out of the program. Or, as Beeten puts it, "We might find a physician sitting in the bleachers, comatose—ready to go home."

This may seem a colorful exaggeration at first—until you talk to some of the veterans. David M. Joyner, M.D., head physician at last year's festival in Oklahoma City, is quick to note how much work is involved. "It's not the glamorous experience everyone thinks it is," said Joyner, an orthopedic surgeon with Orthopedic Surgeons, Ltd., in Camp Hill, Pennsylvania. "You're on call 24 hours a day for the athletes. Both your medical and social skills are challenged to the maximum degree."

How well physicians rise to that challenge is assessed by a team of USOC evaluators. The team consists of former volunteers, the head physician at the event, and several USOC athletic trainers. The USOC tries to make the process as unobtrusive and noninvasive as possible; evaluators show up intermittently in the training room or at practice and competition sites, trying to get a sense of how well physicians are interacting with the athletes.

An ability to develop an "instant rapport" with the athletes is nearly as important as a physician's medical skills, Waters said. "We look at whether they're able to immediately convey their competency and a sense that they care for the athletes," she said. "That kind of positive bedside manner is something you can't attach a number to—but you notice it when you see it."

Beeten agrees that personal compatibility figures heavily into the evaluation. "An abrupt manner doesn't work well in a situation like this, where you're all strangers initially, and you have to get to know one another pretty fast," he said.

In addition to medical competency, personal skills, and sheer stamina, evaluators might look for other, more subtle clues of a physician's ability to adapt. "Do they miss the office, the Hilton suite, and all the comforts of

home?" asked Waters. "That's critical to know. If we're about to send a physician to cover an international sports event in Venezuela, and he or she is bothered by the absence of these comforts, that spells trouble."

The stakes involved in the evaluation process are high. How physicians rank can make or break their chance of being invited to an international game—or to the Olympic Games. Only 3 percent to 4 percent of physicians who enter the volunteer program actually make it to the Olympics. "The way I see it, these physicians work just as hard and sacrifice just as much as the athletes," said Waters. "The process is about as competitive as the one athletes go through to get to the Olympics."



"You're on call  
24 hours a day for the  
athletes. Both your  
medical and social  
skills are challenged to  
the maximum  
degree."

—David Joyner, M.D.

### *Veterans Tell Their Stories*

Long hours and Spartan accommodations aside, those who've covered previous Olympic Festivals talk animatedly about their experiences and have an abundance of stories to tell. Many like to reminisce about late-night discussions they've had with trainers, athletes, coaches, and other physicians. Words like "camaraderie" crop up again and again as they describe the people they've met—many of whom they still keep in touch with.

All veterans of the festival experience speak admiringly of the athletic trainers they've worked with. James B. Montgomery, M.D., who was head physician at the 1987 Olympic Festival in Chapel Hill, North Carolina, still shakes his head in disbelief as he describes one trainer's almost uncanny ability to predict when injuries were about to occur. He gave one of what he said were several examples: As he sat next to this particular trainer and

watched the marathon get underway in Chapel Hill, the trainer pointed to one of the runners and predicted she wouldn't make it. Montgomery brushed the comment aside: "It's only the first lap—it's too soon to tell." In the middle of the third lap, the woman staggered over to Montgomery, collapsed onto his golf cart, and said, "I don't know where I am or how I got here." Montgomery whisked the woman over to the clinic, packed her in ice, and pushed fluids into her.

One of Dr. Mary Lloyd Ireland's most vivid memories is of treating a diving official who had suffered a heart attack during the Chapel Hill festival. "He had elbow pain on the left side and just didn't look too well," recounted Ireland, an orthopedic surgeon with Kentucky Sports Medicine in Lexington and head physician at the upcoming Twin Cities festival. "I remember him telling me, 'I've got to get back and announce the diving finals,'



and I had to say, 'Sorry—I don't think so.'"

Just as diagnosing heart attacks is not in Ireland's usual line of duty, Robert J. Johnson, M.D., a Minneapolis-based family practice physician, is not often faced with the need to suture skin lacerations—especially in Greco-Roman wrestlers. But that's exactly what he was called upon to do as a volunteer physician at the Olympic Festival in Oklahoma City last year. "These athletes really did themselves in," said Johnson, coordinator of Primary Care Sports Medicine in the Department of Family Practice at Hennepin County Medical Center. "The top three finalists were scheduled to go to the world matches in Europe, so there was some heavy-duty competition for those spots."

Fischer, who covered basketball as a volunteer physician at the same festival, continued to see some of the athletes he'd treated long after the festival ended. "I couldn't turn on the television set to watch the NCAA basketball tournament last fall without seeing one or

more of the players I'd worked with in Oklahoma City," he said. "Some of these players actually made it to the Final Four."

As team physician for the Minnesota Vikings and Timberwolves, Fischer is hardly unaccustomed to treating high-caliber athletes in unfamiliar surroundings and to being on the road a lot. But he's found that caring for athletes at an Olympic Festival is far more challenging. "When you cover a festival, you don't know the athletes or how they'll react to injury," he said.

Another challenge that trainers and physicians may face during a festival or any other Olympic event is the need for extreme caution and discretion when athletes have minor injuries they don't want the whole world—especially their competitors—to know about. "Few events go by without one or more critical players getting hurt," said Beeten, who has worked as a trainer at many Olympic events. "You do the best you can, because you want to help them if they've still got a chance to compete.

## OUT IN FRONT

*Olympic Festival-'90  
head physician  
Mary Lloyd Ireland*

One of the things Mary Lloyd Ireland, M.D., looks forward to the most about the 1990 Olympic Festival is the chance to march with the athletes during the opening ceremonies. Not that she hasn't done it before. In fact, you'd think the experience would become a bit old the fourth time around. But for Ireland, who will be head physician at the festival, the opening parade never loses any of its appeal. "It's always an incredible thrill to represent the United States at an Olympic event," she said.

Ireland is one of the few people who knows what it's like to represent the United States both as a physician *and* as an athlete. A world-class athlete in her own right, she competed and placed fourth in the breaststroke at the World University Games in Moscow in 1973; she was 20 at the time. "I didn't win a medal, but it was exciting to be there," said Ireland, now 37. She remembers the hospitality of the Muscovites and how often they clamored for her autograph in the streets and on the subway.

The intensity that once characterized her athleticism is now channeled into her orthopedics and sports medicine practice: Kentucky Sports Medicine in Lexington. "When people ask me what I do for exercise, I tell them that I lift heavy legs and apply casts," jokes Ireland, an orthopedic surgeon. She's treated hun-

dreds of recreational and professional athletes for the gamut of sports injuries. She is the team physician for the University of Kentucky and Eastern Kentucky University football teams, and the first woman to serve as head physician of an Olympic Festival.

Her list of Olympic credentials includes being a volunteer physician at the 1987 Olympic Festival in Chapel Hill, North Carolina, and at the 1989 World University Games in Duisburg, West Germany. "It was fascinating to be in Germany right before the Berlin Wall went down," Ireland said. The worst medical emergencies that occurred during the games were a torn knee meniscus in a fencing coach and appendicitis in a Canadian athlete. Beyond that, Ireland recalls treating an inordinate number of allergy and sinus problems—and having to be extremely cautious as she prescribed medications for those problems. "Under the Olympic rules, most cold medications are illegal," said Ireland. "Even something as seemingly innocuous as a Contact capsule has epinephrine in it, which is a banned substance."

She expects to be similarly preoccupied with drug issues at the Twin Cities festival, where testing will be done just as it is during a bona fide Olympic Games. One of the major goals of a festival, notes Ireland, is to simulate the Olympics as much as possible. Officials and organizers try to match the drug-testing procedures, venues, dorms, food, training areas, rules, and security arrangements that would be in place at a full-fledged Olympics. "Simulating" drug testing does not mean "pretend" drug testing: Athletes can be disqualified from competition if their results are positive.

"I'm sure I'll spend a lot of time emphasizing to athletes, trainers, staff physicians, and coaches how important it is to document each and every medication that athletes take, no matter how minor it may

But sometimes you've got to keep that information under wraps so other folks don't learn about it."

Beeten recalls driving an injured skier 20 miles up the side of a mountain each morning to tape his ankle and force his foot into a boot before he could ski. He also remembers a basketball player who twisted his ankle during an exhibition game two days before an Olympic event—and how the training staff quietly treated the player's ankle behind the scenes. "Sometimes what we do is help them buy a little time," Beeten said.

As Montgomery sees it, one of the biggest plusses to working at an Olympic Festival is the chance to work side-by-side with some of the best athletic trainers in the country—and to compare notes with other sports medicine physicians. "You learn a tremendous amount about how other people's patients and surgeries turn out," said Montgomery, who was recently named head physician of the 1992 Olympic Summer Games in Barcelona. "It's an ideal hands-on learning experience."

**"Olympic competitions are high-risk times because these athletes go all out. They push themselves right to the edge."**

*—David Fischer, M.D.*

Joyner, too, appreciates the exchange of ideas—but he points to something else that impresses him. "It's the best-run situation I've ever been involved with, as far as delivering mass medical care to athletes is concerned," said Joyner, who will serve as head physician at the 1992 Olympic Winter Games in Albertville, France. "The USOC staff 'greases the engine' so that it works well, and you just get in and drive the car."

seem," Ireland said. A simple over-the-counter medication innocently taken for minor aches and pains could lead to an athlete's disqualification if it showed up in a drug-test result. Athletes who legitimately take medications for chronic medical conditions—asthma, for example—should also let their physicians and trainers know about these right away, says Ireland. That way, the need for these medications can be explained well in advance to the rules committee—long before that athlete's name comes up in the random selection process for drug testing.

As head physician, Ireland will at times be put in the difficult position of deciding whether to disqualify an injured athlete. This decision used to be made primarily by the physician volunteer and trainer who were involved in the care of that athlete. But that placed too much of the onus of deciding an athlete's future on one or two people. These decisions are now made by a committee, whose members consist of the head physician, the physician volunteer assigned to that athlete, the coach, the team trainer, and the administrator of that sport.

At any Olympic Festival, the head physician's duties center less on providing direct care to the athletes and more on being an administrator, organizer, spokesperson, and troubleshooter. The commu-

nications job is an enormous one in and of itself. Anytime an athlete is injured, Ireland will communicate with the athlete, with the coach and family members at the festival and back home, and with the press. In fact, she'll handle all press responsibilities from a medical standpoint. She'll "pinch hit" for the medical staff if she's needed in the clinic or at a competition site. But for the most part, she'll see to it that all the athletes are getting the medical care they need.

Does she expect any special medical problems to arise at the Twin Cities festival? "The heat is always our No. 1 concern," said Ireland. "However, we have the ability to change the times and shorten the distances of events to make it safer for athletes to compete." At the Chapel Hill festival, for example, the heat and humidity were so excruciating that the marathon time was changed to 7 a.m. "We've been urging coaches to keep their athletes well-hydrated," Ireland said.

Although she is the first woman to serve as head physician at an Olympic Festival, Ireland would rather underplay that fact.

"If someone decides to pursue a career in orthopedics or sports medicine because of it, then I guess I don't mind the publicity," she said.

*—By Debra Giel Adams*



**Ireland is one of the few people who knows what it's like to represent the United States both as a physician *and* as an athlete.**



## The Twin Cities Festival

Given that the USOC has run what is literally the largest sports event in the country for more than a decade (festivals are held each year in the three years preceding the Olympics), perhaps it's not surprising that the event tends to run so smoothly. "It's really become a traveling road show," Beeten joked. But USOC officials are quick to point out that some cities are more up to the task of accommodating this massive road show than others. How do the Twin Cities rate?

"Famously," said Waters. "You folks are so well-organized and pumped up for this. I've been going to Olympic Festivals since 1985, and you're by far the most organized."

From a medical standpoint, part of the reason might be that Fischer, who is no longer new at this, heads the committee that was created to serve as a liaison between the USOC and the local medical community. He's working closely with the St. Paul Red Cross, which will provide medical care to the 700,000 spectators who are expected to attend the July 6-15 event, and with the state licensing board to obtain temporary licenses for all 13 volunteer physicians. The committee designated Riverside Medical Center as the local "Olympic" hospital, where athletes will be rushed to in case of an emergency. The football training rooms at the University of Minnesota and the College of St. Thomas will serve as the central clinic sites.

If last year's festival is any indication, this year's medical team has its work cut out for it. In Oklahoma City, 12 physicians and 50 athletic trainers delivered more than 8,000 treatments to 4,000 athletes in 2½ weeks. "That's a significant number," said Beeten. "If physicians had a patient population like that in the real world, they'd make a fortune." Moreover, that number doesn't include treatments given to coaches and sports officials—also the medical team's responsibility.

Although 8,000 treatments might seem a high number at first, it's not unusual for an Olympic event of this size. "In general, Olympic competitions are high-risk times because these athletes go all out," said Fischer.

"Sometimes they push themselves right to the edge and are close to losing control." This intensity translates into many injuries—and into the need for a medical team to stand by. Ironically, throughout the rest of the year, few of these athletes have personal physicians or trainers by their sides as they put in hundreds of hours of practice time in their local communities. If they develop a problem that needs medical attention, they usually seek out a local sports medicine physician, who may then become their personal physician.

With 4,000 athletes in 32 different sports, there are, obviously, not enough physicians to stand by each athlete at the Twin Cities festival. According to Waters, the USOC assigns physicians to various sports after looking at the number of athletes involved, the overall risk of that sport, and how often practices are held. Soccer, for example, will have one physician on-site at all times; bowling and table tennis will not. Regardless of risk, numbers, and other criteria, each sport will have one athletic trainer assigned to it. Fifty-seven trainers, each of whom was chosen through a volunteer program similar to that for physicians, will cover the Twin Cities festival.

"Covering" a festival is a bit of a misnomer, says Fischer. After "covering" the Olympic Festival in Oklahoma City for 2½ weeks, he saw little of the competition itself—even basketball, his assigned sport. He has no idea where Oklahoma City's prominent local sites or best restaurants are. On the other hand, he says he's able to close his eyes and see every salve, bandage, and ointment in the training room at the University of Oklahoma.

There's something to be said for that.

MM

*Debra Giel Adams is a free-lance writer based in Minneapolis.*

*Photo credits: weight lifter and skater by Paul J. Sutton, volleyball players and rowing team by David Madison, runners and tennis player by Steven E. Sutton, ©duomo. Photos courtesy of the U.S. Olympic Festival-'90 Committee.*



# TAKING THE LEAD IN OLYMPIC MEDICINE AND SCIENCE

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The U.S. Olympic Committee (USOC) Sports Medicine and Science Division uses the latest medical and science technology to treat, monitor, and train America's best amateur athletes and maintain their health. The USOC operates sports medicine facilities at the Colorado Springs and Lake Placid Olympic Training Centers (OTCs) and plans to complete construction of facilities in San Diego by late 1991.

## *Sports Medicine*

### *Clinical Services Program*

The USOC's Clinical Services Program provides a total health care package for all athletes in residence at an Olympic Training Center and for athletes competing at the U.S. Olympic Festivals and USOC-sponsored international events such as the Olympic Games, the Pan American Games, and the World University Games. Each clinic is a combination athletic training room, physician's office, and examining room with state-of-the-art equipment and necessary supplies, most of which are donated by various U.S. companies. USOC personnel, volunteer certified athletic trainers, and physicians in the Clinical Services Program provide the athletes with preventive, diagnostic, therapeutic, and short-term rehabilitative care.

### *Volunteer Program*

Volunteer physicians, chiropractors, and certified athletic trainers comprise the USOC's volunteer medical staff, which serves the thousands of athletes participating each year in USOC-sponsored competitions and OTC programs. These volunteers provide services at the Olympic Training Centers and may be invited to serve on a U.S. Olympic Festival staff. After that, they become eligible for selection to the medical staffs for the World University Games, Pan American Games, or Olympic Games.

### *Vision, Dental, and Nutrition Services*

Volunteer ophthalmologists and optometrists provide eye care, and volunteer dentists and a USOC staff dental hygienist provide dental care to OTC athletes. And, recognizing the importance of a healthy diet to an athlete's performance, the OTCs also offer nutrition counseling, education, and dietary planning. The education program covers such topics as dehydration, thermal injuries, carbohydrate loading, and dietary supplements.

## *Sports Science*

The USOC's Sports Science program focuses on improving an athlete's performance by interdisciplinary evaluations of the athlete's training programs. Through the integration of physiology, psychology, and biomechanics, the athlete and coach can learn precisely how well the athlete is pursuing his or her goal of excellence. Good sports science is a non-clinical form of preventive medicine, because it helps prevent problems that stem from overtraining and poor technique.

### *Sports Biomechanics*

Biomechanics uses physics and engineering principles to analyze an athlete's movements during the performance of a sport or motor skill. Athletic performances can be qualitatively or quantitatively analyzed. For immediate qualitative feedback, normal and high-speed video recordings of athletic performance are provided to the coach and athlete in the training or competitive setting. If a quantitative analysis is conducted, the athlete's motion and the forces causing the motion are described numerically.

Descriptions of sports skills are obtained by analyzing the visual images of athletic performance that have been recorded on film or videotape. With quantitative descriptions, the visual images are linked to specialized computer analysis systems. These detailed biomechanical analyses are designed specifically to measure critical aspects of a particular sport skill, and group reaction force measures also can be obtained. Both individual data and group statistical results can be provided to the coaches and athletes.

Film and video cameras, motion measurement computer systems, force platforms, and computerized laser timing light systems are all used to obtain biomechanical data. Simultaneous recorded split-screen views in the video format also are available. The equipment is easily portable, since the testing is often conducted outside the laboratory during training and competition.

### *Sports Physiology*

Sports physiology focuses on the body's acute and chronic adaptations to the stress of exercise. The physiology staff at the Colorado Springs OTC is available to resident athletes and coaches, to those visiting the OTC for short-term camps, and for on-site testing at remote locations. The laboratory has the capability of performing sport-specific physiological testings to evaluate an athlete's strengths and weaknesses, to assist in developing training programs that optimize the adaptive response, and to monitor progress over the competitive season. Providing immediate feedback of information to the athlete and coach is a primary objective.

### *Sports Psychology*

Sports psychology addresses psychological components that contribute to effective training, competition, and performance. The sports psychology program typically includes coaches workshops, group lectures, and consul-





terized psychological assessment, biofeedback, and relaxation equipment.

### Computer Science

The Computer Science Department provides expert technical support to the other sports science program areas. Its staff has developed software to enable such testing and analysis as lactate profiles, film digitizing, psychological evaluation, and power generation.

### Engineering and Technology

The Engineering and Technology Department uses tech-

nology to help athletes monitor and evaluate sport-specific performance characteristics, and it provides immediate feedback regarding adaptations to improve performance.

A staff clinical psychologist is available at no charge to athletes at the Colorado Springs OTC, as well as compu-

nology to help athletes monitor and evaluate sport-specific performance characteristics, and it provides immediate feedback regarding adaptations to improve performance.

The engineering and technology staff works closely with other sports science staff, athletes, and coaches to develop some of the most sophisticated sports-related test equipment in the world for use as training aids or in biomechanical, physiological, or psychological testing. Examples of the applications of technology developed and implemented by the department include force measurement designs—for instance, monitoring the force exerted by a gymnast on the free rings, the power of a boxer's punch, the number of G-forces a bobsledder experiences during a run, or the water resistance of a swimmer—and biomedical or physiological projects, such as designing a cardiac output monitor to measure the amount of blood pumped per beat or per minute, or the power an athlete can put into a vertical jump test.

This wide array of programs, services, and equipment, combined with skilled staff, forms the backbone of the USOC's Sports Medicine and Science Division. **MM**

*This article was adapted from "USOC Sports Medicine and Science," published in the January 1990 issue of The Olympian, an official publication of the United States Olympic Committee, Colorado Springs, Colorado.*

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# HIV-Antibody Testing in a Multispecialty Group Practice

David N. Williams, M.D., Paul E. Terry, Ph.D., Scott Strickland, M.D.,  
Alfred M. Pheley, M.S., and Apryl Raze, L.P.N.

## ABSTRACT

The authors reviewed the trends in HIV-antibody testing at a multispecialty group practice with more than 280 physicians. Based on a chart review of 243 randomly selected patient records, they judged 38% of the tests ordered to be for low-risk individuals. Forty-five percent of the records documented the patient's informed consent before testing, and only 15% noted that patient education or counseling had been given.

Little has been reported concerning how physicians counsel patients following human immunodeficiency virus (HIV)-antibody testing. However, physicians can use serologic testing as a powerful tool for educating patients about behavioral changes that will lower the risk of HIV exposure and transmission.<sup>1</sup> When tests are provided in the context of clear informed consent from the patient and conscientious counseling and follow-up by the physician, there is great potential for influencing individuals' behavior and lowering the incidence of AIDS.<sup>2</sup>

We report the HIV-antibody testing experience at a large multispecialty group practice in an area of low HIV incidence. We reviewed the documented reasons for testing and analyzed physician practices in gaining informed consent and advocating behavior change for patients at risk.

## Methods

A total sample of HIV-antibody serologies was identified from the central clinical laboratory in a large Twin Cities-based multispecialty group practice. Between January 1, 1987, and September 30, 1987, 1,421 patients were screened for HIV antibodies by the enzyme-linked immunosorbent assay (ELISA). Based on individual physician chart codes, a stratified random sample of 245 patients was selected for chart review. Charts were not obtainable for two patients, for a final sample of 243.

Records were reviewed for demographic characteristics, the ordering physician's specialty, and HIV-antibody testing results. Laboratory specimens that were repeatedly reactive by ELISA and confirmed by Western blot assay were defined as

positive. Negative, undetermined, or unrecorded results were noted along with additional test results for the HIV antibody. The record was examined for notes indicating the patient's verbal or written informed consent prior to testing as well as documented counseling or education before or after testing. While most tests were initiated via patient request, informed consent was not deemed present unless patient understanding of the testing issues was documented. Charts were reviewed for documented reasons for ordering the HIV test. A checklist was used to quantify and contrast high-risk from low-risk reasons for testing. Whether the physician or patient initiated a requested for the test was noted when the information was available.

## Results

In our selected sample of 243 charts, 56% of the patients were women; 95% were white; and 44% were between the ages of 25 and 34. Three patients (1.2%) had tested positive for the HIV antibody. All three had a history of high-risk activity. No patient in our sample had a documented history of intravenous drug use.

HIV testing was ordered only in primary care specialties (Table 1). Most tests were patient-initiated (59.7%); only 18 tests (7.6%) were physician-initiated; and the catalyst for the remaining 77 tests (32.6%) is unknown.

In nearly half (43.6%) of the charts, no reason was given for test ordering (Table 2). About half (45.4%) of the charts indicated that some form of verbal consent was obtained prior to testing. Evidence of education or counseling was documented in only 15% of the cases.

Of the 137 charts with recorded testing rationale, 45 reasons (18.5%)



Table 1

*Test ordering by specialty*

| Specialty         | MDs           | % MDs in                | Tests Ordered | HIV AB Tests Ordered Per Specialty |      |        |
|-------------------|---------------|-------------------------|---------------|------------------------------------|------|--------|
|                   | Ordering Test | Specialty Ordering Test | Per Specialty | Range                              | Mean | Median |
| Family Practice   | 34            | 100%                    | 323           | 1-41                               | 9.5  | 6.0    |
| Pediatrics        | 14            | 60%                     | 31            | 1-10                               | 2.2  | 1.0    |
| Obstetrics        | 23            | 100%                    | 263           | 1-38                               | 11.4 | 8.0    |
| Internal Medicine | 56            | 100%                    | 692           | 1-90                               | 12.4 | 7.0    |

Table 2

*Chart documentation*

|                                                      | N   | Percent |
|------------------------------------------------------|-----|---------|
| Notation in chart giving reason for testing          | 137 | 56.4%   |
| No reason for testing noted or inferred in chart     | 106 | 43.6%   |
| Documentation of informed consent for HIV AB testing | 108 | 45.4%   |
| Documentation of education or counseling             | 36  | 15.1%   |

were judged "high risk," and 92 reasons (37.9%) could be deemed "low risk." About one-third of the tests (31%) were indicated because the patient presented with high-risk heterosexual exposure (Figure 1). Other high-risk indicators reported were sexually active gay or bisexual males (22%), suggestive clinical symptoms and signs (17%), a history of multiple blood transfusions (15%), and a needle stick or health-related contact (13%).

Figure 2 illustrates charted "low-risk" reasons for HIV testing. The most common reasons were low-risk heterosexuality (29%), a "suspect" sexual partner (23%), or other low-risk events (26%).

## Discussion

Our findings are consistent with several other reports indicating a need for more effective utilization of HIV-antibody tests.<sup>1,2,3</sup> In our experience, orders for HIV testing vary widely between and within specialties but were largely confined to primary care. Physicians seldom (only 15% of the time) document that they provide education or counseling along with

testing, which may well be indicative of the extent to which counseling actually occurs.<sup>4,5</sup>

Most of the documented reasons for ordering an HIV test were considered low risk, similar to hospital-based findings in another Minnesota study.<sup>6</sup> Our finding that physicians

document informed consent only about half the time is also consistent with reports that indicate patient consent is rarely obtained for HIV testing.

Our results and other reports suggest suspicions about partners or low-risk heterosexuality often lead low-risk patients to seek HIV testing in health care settings.<sup>7</sup> These data substantiate the need for physician-to-patient education to temper this overestimation of risk.

In an area of low AIDS incidence, the importance of creating effective guidelines for HIV-antibody testing is no less important than other areas<sup>8</sup> and, in some respects, perhaps more important.<sup>1</sup> Opportunities for primary prevention of HIV transmission occur during every patient visit

### High-risk Reasons for HIV AB Testing

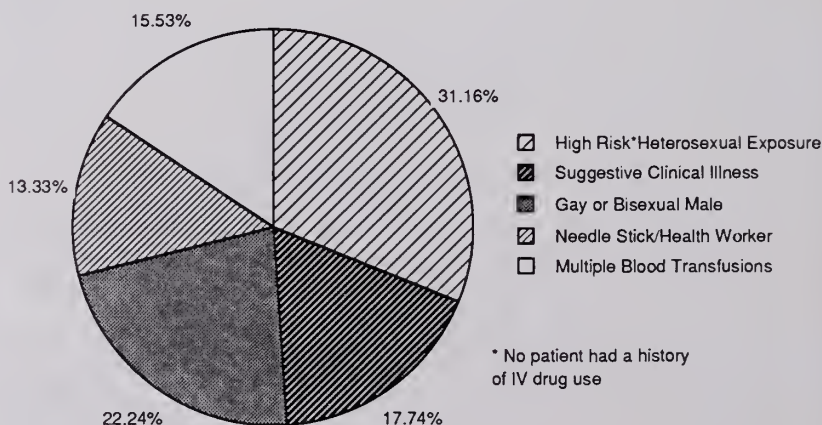


FIGURE 1 - High-risk reasons given for HIV-antibody testing (45 patients, 18.5% of sample).

## Low-risk Reasons for HIV AB Testing

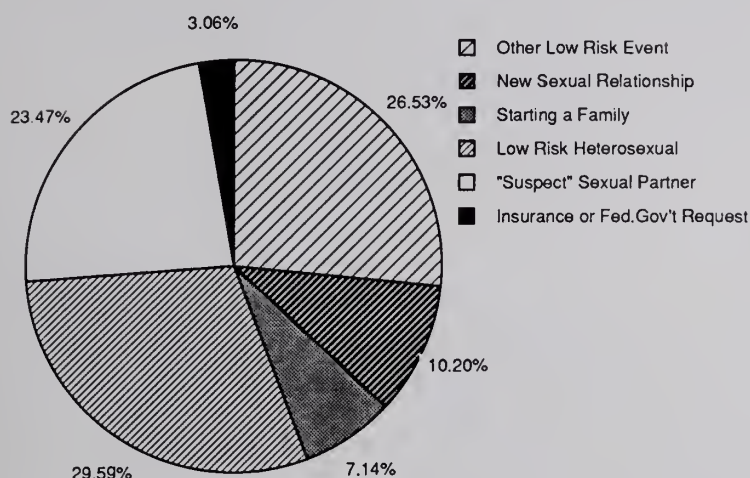


FIGURE 2 - Low-risk reasons given for HIV-antibody testing (92 patients, 37% of sample).

in which the subject of testing is broached. Performing HIV testing and discussing serostatus results with patients provide an ideal opportunity for physicians to educate patients about HIV transmission. Clear messages promoting low-risk behavior may be the most powerful tools physicians have to curtail the public health threat of AIDS. MM

*David Williams is an internist in Park Nicollet Medical Center's Infectious Disease Section.*

*Paul Terry is the vice president of education of Park Nicollet Medical Foundation's Health Education Center.*

*Scott Strickland is an internist at Park Nicollet Medical Center.*

*Alfred Pheley is a biostatistician at the Health Research Center.*

*Apryl Raze is an L.P.N. in the medical center's Internal Medicine Section.*

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*Address reprint requests to: Paul E.*

*Terry, Ph.D., vice president of education, Park Nicollet Medical Foundation, 5000 West 39th Street, Minneapolis, Minnesota 55416; (612) 927-3758.*

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# Temporary Banding of the Gastroesophageal Junction in a Very Small Neonate with Esophageal Atresia and Tracheoesophageal Fistula

*David W. Todd, M.D., F.A.C.S., Craig T. Shoemaker, M.D.,  
Indu Agarwal, M.D., and David A. Browdie, M.D., F.A.C.S.*

## ABSTRACT

A 700 gm, small-for-gestational-age infant with severe respiratory distress, esophageal atresia, and Type C tracheoesophageal fistula was treated with initial banding of the gastroesophageal junction followed by a gastrostomy. Primary repair was completed later, when the infant had stabilized and grown. Continuous air pressure had distended the fistula, thus dilating the distal esophagus and facilitating repair. In very small, high-risk infants with Type C esophageal atresia and tracheoesophageal fistula, banding of the distal esophagus enables enteral feeding and time for growth while protecting the lungs from repetitive aspiration and pneumonia and facilitates subsequent repair. The patient described here is one of the smallest infants reported to survive this problem. It is also the first time the enlargement of the distal pouch and removal of the band from above have been described.

## Case

A small-for-gestational-age boy was delivered by cesarean section at 30 weeks' gestational age. The mother had severe hypertension caused by nephrotic syndrome and was being treated with calcium channel blockers Hydralazine and Aldomet at the time of delivery.

The child was born with Apgars of 3 and 6 and weighed 700 gm. Tracheal intubation was accomplished prior to the five-minute Apgar, and the infant was taken to the neonatal intensive care unit. A nasogastric tube could not be passed, and esophageal atresia was diagnosed. Presence of gas in the gastrointestinal tract on chest and abdominal X-ray confirmed the diagnosis of tracheoesophageal fistula Type C. Hypoglycemia and hypocalcemia occurred intermittently, but both were resolved. A patent ductus arteriosus present at birth and demonstrated by echocardiography subsequently closed spontaneously.

The infant was transferred to our institution at 13 days for correction of the tracheoesophageal fistula and esophageal atresia. He had received antibiotics, three doses of intravenous immunoglobulin, and parenteral hyperalimentation, and he required endotracheal respiratory support at the time of transfer.

On arrival, the infant's weight was 700 gm. The blood gases were well maintained; heart rate was 150; blood pressure 45/25; respiratory rate 50; and head circumference 24 cm. Chest X-ray showed the umbilical artery catheter to be in good position, and a suction tube was placed into the esophageal pouch. The right lung field showed some infiltrates in the right upper lobe that faded into the cardiac silhouette. The cardiac

silhouette and abdominal gas pattern were within normal limits.

On the following day, a gastrostomy was completed, and a teflon-felt band was placed around the lower esophagus at the gastroesophageal junction through an upper abdominal incision. A 2-0 prolene ligature was anchored on the teflon and tied down (figures 1 and 2). Feedings were begun later via the gastrostomy and increased slowly. The infant's intestinal function appeared to be satisfactory.

When the infant reached 93 days of age, the right-chest repair of the tracheoesophageal fistula was undertaken using a retropleural approach. The teflon band was removed using the thoracic approach, and the esophageal ends were anastomosed. The divided tracheal fistula was closed. The lower esophageal pouch was very large, patulous, and easy to anastomose. Gas pressure from the fistula had dilated and lengthened the esophageal pouch, which was obstructed at its distal end by the teflon-felt band. This was an unexpected advantage of the esophageal banding procedure (Figure 3).

Twelve days post-surgery, feedings were begun via the gastrostomy tube and advanced slowly. Fifteen days after surgery, the infant was extubated and required chest physical therapy for atelectasis, but pulmonary function continued to improve. A barium swallow X-ray series showed the esophageal anastomosis was satisfactory, and the infant was begun on oral feedings with the remainder of the feedings being given by gastrostomy.

The infant was stable and was transferred back to the referring institution at 27 days post-surgery for further convalescent therapy, weight gain, and continued pulmonary ob-

servation. His weight at that time was 1,820 gm. The infant was subsequently discharged to home, where he is doing well at this time and is taking all feedings orally.

### Discussion

In 1972, Leininger<sup>1</sup> described Silastic banding of the esophagus with subsequent repair of the esophageal atresia and tracheoesophageal fistula in a critically ill infant. The infant described had esophageal atresia, a tra-

cheoesophageal fistula, tracheomalacia, erythroblastosis fetalis, and pneumonitis and was successfully managed by initial banding of the distal esophagus followed by definitive repair of the tracheoesophageal fistula and esophageal atresia. Two weeks elapsed between the banding and the definitive surgery.

Fugelman<sup>2</sup> et al. in 1985 described temporary banding of the gastroesophageal juncture of a critically ill neonate with esophageal atresia and tracheoesophageal fistula. He emphasized placement of the esophageal band in such a way that it could be removed without reopening the abdomen at the time of esophageal atresia and tracheoesophageal fistula repair.

Ogita<sup>3</sup> in 1986 treated two babies with Type C tracheoesophageal fistula and esophageal atresia with a Nissen fundoplication and gastrostomy. The Nissen procedure prevented reflux and an air leak of less than 30 cm of intrapulmonary water pressure. His group recommended this procedure for managing poor-risk patients with esophageal atresia and tracheoesophageal fistula.

In 1988, Pohlson<sup>4</sup> described improved survival with primary anastomosis in the low-birth-weight neonate with esophageal atresia and tracheoesophageal fistula. In his group, there were 31 neonates weighing 2.5 kg or less with Type C tracheoesoph-



FIGURE 3 - X-ray showing air-filled, dilating distal esophageal pouch.

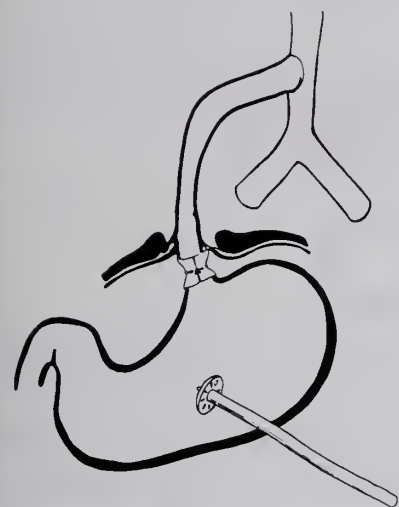


FIGURE 1 - Technique used for banding with teflon strips and prolene placed from below with gastrostomy. Removed from above at time of definitive repair.



FIGURE 2 - Patient shortly after esophageal banding and gastrostomy.

ageal fistula and esophageal atresia; 22 underwent primary repair within the first five days of life. There were no mortalities, and only one leak occurred in this group. Of the remaining nine patients, seven had severe respiratory distress requiring a ventilator, and two died prior to repair. The smallest patient, who weighed 970 gm, first underwent a gastrostomy but eventually died.

The 700 gm neonate we treated required prolonged positive-pressure ventilatory support and parenteral nutrition. The tissues in a very small infant often are so delicate that any tension at all between the ends of the esophagus is likely to disrupt the anastomosis. A thoracotomy to divide the fistula, in addition to a laparotomy for a gastrostomy, can be extremely stressful for a very small infant with respiratory distress. Banding the esophagus prevented reflux from the stomach into the trachea and prevented an air leak via the fistula. Placing the gastrostomy during the same procedure enabled enteral nutrition to be established after the infant had stabilized. Constant suction was continued in the upper esophageal pouch. At the time of the definitive procedure, we found the lower pouch had dilated because of the gas passing into it through the fistula. The larger size of the distal esophageal segment allowed the completion of an anastomosis with minimal tension. We found it simple to



remove the band from the chest by following the distal esophagus to the hiatus. This previously undescribed dilatation effect on the lower pouch was a valuable adjunct to the banding of the esophagus.

### Summary

Survival of a very small infant (700 gm) with Type C esophageal atresia and tracheoesophageal fistula is described. Banding of the gastroesophageal juncture at the time of gastrotomy protects the lungs and facilitates subsequent repair. The infant described is one of the smallest reported to survive this problem. Ours is also the first description of the enlargement of the distal pouch and removal of the band from above during late thoracotomy.

We believe this technique can

improve the chances for survival of many babies with this combination of problems.

MM

*David Todd and David Browdie are from the Division of Pediatric Surgery, University of North Dakota School of Medicine and Children's Hospital-MeritCare, Fargo, North Dakota.*

*Craig Shoemaker and Indu Agarwal are from the Division of Neonatology at the University of North Dakota and Children's Hospital-MeritCare, Fargo, North Dakota.*

*Address reprint requests to David W. Todd, M.D., F.A.C.S., Fargo Clinic-MeritCare, 737 Broadway, Fargo, ND 58123.*

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**Contraindications:** Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

**Warnings:** Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

**Precautions:** Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring.

Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration. Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

**Adverse Reactions:** Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°, 2°, 3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, increased urination, spotty menstruation, impotence.

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Examples:

1. Benson RC Jr.: Laser photodynamic therapy for bladder cancer. *Mayo Clinic Proc* 61:859-864, 1986.
2. Guttormson NL, Bublick MP: Mortality from ischemic colitis. *Dis Colon & Rectum*, to be published.
3. Chatterjee SN: Use of GOR-TEX grafts as vascular access procedure for chronic hemodialysis. Abstract of a paper submitted to the European Society for Artificial Organs Eighth Annual Meeting, Copenhagen, August, 1981.
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# Prescribing Issues Grant Report to the Board of Medical Examiners

## *First of two parts*

Minnesota Medical Association

**T**wenty percent of all complaints filed with the Minnesota Board of Medical Examiners (BME) in fiscal year 1987-88 were related to physician prescribing practices. Thirty-five percent of the orders issued by the BME in which licenses were revoked, suspended, or otherwise altered in status were listed under the category of malprescribing.

In response to the growing number of prescribing practices complaints, the BME awarded a contract to the Minnesota Medical Association (MMA) in the spring of 1989 to determine the prevailing prescribing practices of Minnesota physicians with respect to all categories and schedules of controlled substances within all clinical specialties and subspecialties.

As dictated by the requirements of the grant, the MMA solicited names of representatives from the medical specialties, medical schools, consumer ombudsmen, and health care associations for a broad range of expertise and perspectives on this topic. The Prescribing Issues Grant Advisory Committee was established to undertake this project and was given approximately six months to complete its task.

To determine current physician prescribing practices, the advisory committee conducted a statewide physician survey. In total, 1,826 survey forms were sent to a randomized group of Minnesota physicians; 1,258 completed questionnaires were returned. The 240 responding pathologists and radiologists were dropped from the sample because most of the questions weren't relevant to their practices. As a result of that deletion, 1,018 usable responses were analyzed out of a new base number of 1,586, for a 64% response rate. The

sample was validated against the MMA's database to assure appropriate representation by specialty and practice location.

The advisory committee also reviewed articles obtained through a

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“Twenty percent of all complaints filed with the Board of Medical Examiners in fiscal year 1987-88 were related to physician prescribing practices.”

---

search of the National Library of Medicine's Medline database.

Following is Part 1 of the final Prescribing Issues Grant Report, summarizing the survey results and the advisory committee's commentary on the prescribing of narcotics and anxiolytics, sedatives, and hypnotics. Part 2, which will be published in the August issue of *Minnesota Medicine*, covers the prescribing of stimulants and anabolic steroids and discusses documentation, chemical dependency, fraud prevention, and physician education. Copies of the complete report, including a more detailed description of the survey methodology, additional figures, and appendices, can be obtained by contacting the Board of Medical Examiners, 2700 University Avenue West, Suite 106, St. Paul, MN 55114-1080.

## *Narcotics*

### *Survey Results*

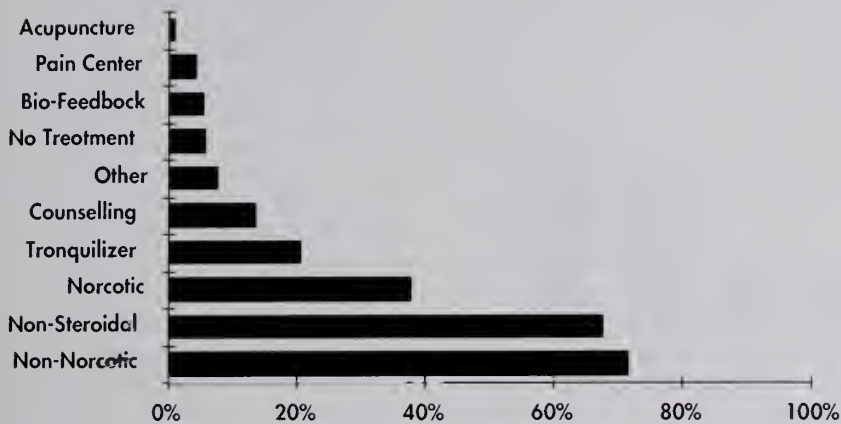
Question 2 in the survey asked physicians about the frequency with which they used particular treatments for chronic pain. For those physicians who treat some chronic pain patients, 72% indicated they used non-narcotic analgesics on a daily or weekly basis, and 68% used nonsteroidal anti-inflammatory drugs on the same basis. Thirty-eight percent made use of narcotic analgesics on a daily or weekly basis (Figure 1).

Some forms of treatment were felt to be less universally available than others. For example, the availability of pain center facilities for referral was of particular concern to respondents. Examination of this question by region revealed that essentially all Twin Cities and Rochester physicians felt that a pain center was available to them, whereas 9% of those in outstate metro areas considered a pain center unavailable, and fully 22% of rural physicians found pain centers to be unavailable for referral.

Question 3 presented a particular case of intractable back pain and asked the physician to choose a course of therapy:

*“A male patient presents to you with complaints of back pain resulting in the inability to continue working. He has had previous surgery but has not responded favorably. The patient has not responded to standard medical treatment, e.g., physical therapy, exercise, body mechanics training, etc. There is no acute process going on currently. He has been receiving Percodan for the past six months. When not taking Percodan he continues to have chronic benign pain. Your next step in treating this patient will be:”*

Fig. 1: Treatment Options for Chronic Pain Utilized on a Daily or Weekly Basis, Ranked



The most commonly selected forms of treatment were nonsteroidal anti-inflammatory agents (21%) and referral to pain centers (28%). Physicians in the Twin Cities and Rochester were more likely to select referral to a pain center as their treatment, while physicians in outstate metro and rural Minnesota were more apt to choose nonsteroidal anti-inflammatory drugs (Figure 2).

The "practice style" measure† was found useful in analyzing the physicians' responses to the case study of intractable back pain in Question 3. Physicians who prescribe based on their own practice experience were essentially even in their choices for pain center referral and prescription of nonsteroidal anti-inflammatory drugs, but physicians who prescribe based on current textbook standards were almost twice as likely to favor referral to the pain center.

A continuation of this first case study in Question 4 asked how long an interval the physician would have scheduled between evaluations had he or she prescribed a controlled medication. Of those respondents who provided a timetable, 54% speci-

fied an interval of six weeks or less, while 27% would allow for an interval of six to 12 weeks. The remaining respondents would allow times ranging from three to six months up to a year or longer.

Question 5 presented a second case study about chronic pain, dealing with cancer in a terminal stage:

*"A 48-year-old woman whom you have cared for with carcinoma of the breast is now terminally ill with metastases to her spine. She complains that the 20 mg of morphine intravenously q/4 hours you are prescribing for her pain is ineffective. Would you now increase her dose?"*

Of those physicians who felt that the question was applicable to their practices, 91% indicated that they would increase a morphine dosage of 20 mg IV q/4 hours if the patient in-

dicated that the amount was insufficient to control the pain. Physicians over the age of 60 were somewhat less likely to give that response, but fully 84% of that subgroup would also increase the dosage.

This case study was complicated in Question 6 by the addition of pneumonia and respiratory failure in the patient:

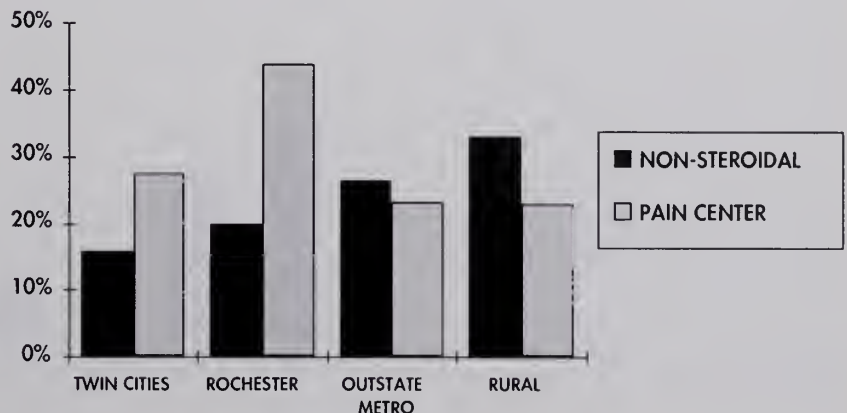
*"Sometime later, the woman described above returns for care with pneumonia and respiratory failure. She is lucid and, with her family's support, has now drawn up a living will requesting no artificial ventilatory support and requests you to let her die in peace. What prescribing decision would you make?"*

The physicians were asked if they would be willing to titrate above the standard dosage of narcotics in this case to attain pain control, or if they would adhere to the standard dose or avoid narcotics altogether in light of respiratory failure. Of those finding this question applicable to their practices, 85% would titrate above the standard dosage. Once again, older physicians were slightly less likely to be willing to take that step (79% of them would titrate), as opposed to 89% of physicians under age 40.

Question 7 presented another case study, this one describing an individual suffering from acute headache pain, recurrent over a period of two to three months:

*"A man presents to you with acute, moderate-severe headache pain. Physical examination, includ-*

Fig. 2: Two Most Common Treatments for Back Pain, by Region



†To evaluate "practice style," physicians were asked to place themselves on a scale from 1 to 5, where a 1 indicated a preference toward making prescribing decisions "based on my own practice experience," and a 5 denoted a tendency to practice according to current textbook standards. The midpoint on the scale was labeled "a combination of both philosophies." The responses revealed an evenly balanced normal distribution. By combining scores of 1 and 2, and scores of 4 and 5, three groups were defined of sufficient size to analyze reliably.



ing neurological examination, is benign. He has a history of headaches, every two to three months, with a family history of migraine headaches. Your initial treatment of this patient would be:"

Of those physicians finding the case applicable to their practices, 30% would begin therapy with Ergotamine or Midrin; 19% selected Tylenol #3/Fiorinal; and 19% also supplied additional treatment plans, most often a neurological consultation.

Question 8, a follow-up to that case study, asked the physicians to assume that their initial treatment choice was unsuccessful and asked them to name their subsequent choice of treatment. For those physicians finding the question applicable to their practices, referral to a pain clinic showed a dramatic jump from 1% to 10%. Physicians supplying "other" responses also climbed from 19% to 31%, with neurological referral remaining the single most common response.

Cross-referencing the initial case presentation with the follow-up question, we find that those physicians who initially prescribed Ergotamine or Midrin most commonly chose as follow-up treatment Tylenol #3 (29%), other (29%), and nonsteroidal anti-inflammatory drugs (18%). Of those physicians who began with Tylenol #3 or Fiorinal, the most common follow-up treatment was other (28%), Ergotamine or Midrin (22%), or injectable narcotic (21%). Physicians who began treatment by specifying other therapies were most likely to continue to specify an additional option through their comments (46%).

An issue presented to the respondents in Question 9 (without any reference to a particular case) was whether or not they used narcotics as a long-term therapy for chronic pain. Of those finding Question 9 applicable to their practices, 22% responded that narcotics are used in their practices as a long-term therapy for chronic pain. Responses to this question varied based on the location of the physician's medical education, with 12% of foreign medical graduates using narcotics as a long-term therapy, and 25% of Minnesota-trained physicians using narcotics in

those situations.

Question 9 also showed significant variation by practice style. Of those physicians who practice according to current textbook standards, 15% use narcotics as a long-term therapy for chronic pain. Of those prescribing based on their own practice experience, 27% use narcotics in those same circumstances.

Variation was also observed by region on this issue. Rural physicians were most apt to use narcotics as a long-term therapy (32%), while Rochester physicians were least likely to use this therapy (13%). This finding is consistent with the previous observation that Rochester physicians were most likely to refer to a pain center for chronic pain (Figure 3).

Sharp differences were observed

between specialties on this question. In analyzing these differences, as in analyzing all differences among practice specialties, it is essential to keep in mind that differences based on specialty may arise from more than one source. Survey findings may indicate a difference in the decision-making process of the physician, a difference in the patient mix seen by that specialty, or, most likely, a combination of many factors.

Family practice physicians were most apt to report using narcotics as a long-term therapy for chronic pain (36%); internists followed at 28%; surgeons, other medical specialties, and psychiatrists clustered between 9% and 11%; while no pediatricians reported using narcotics as a long-term therapy (Figure 4).

Fig. 3: Use of Narcotics as Long-term Therapy in Chronic Pain, by Region

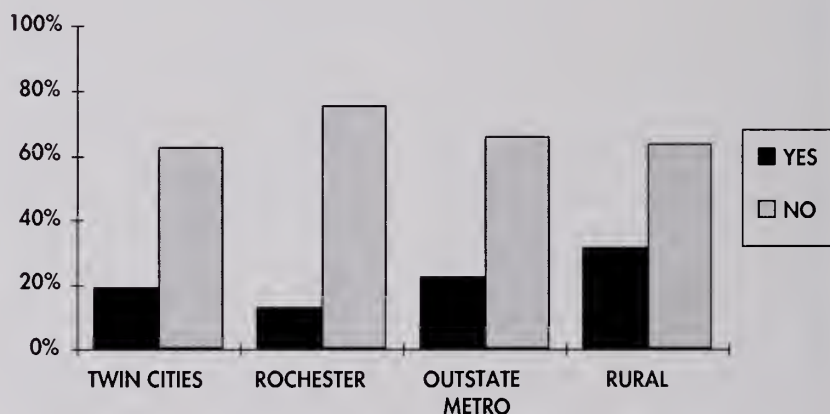
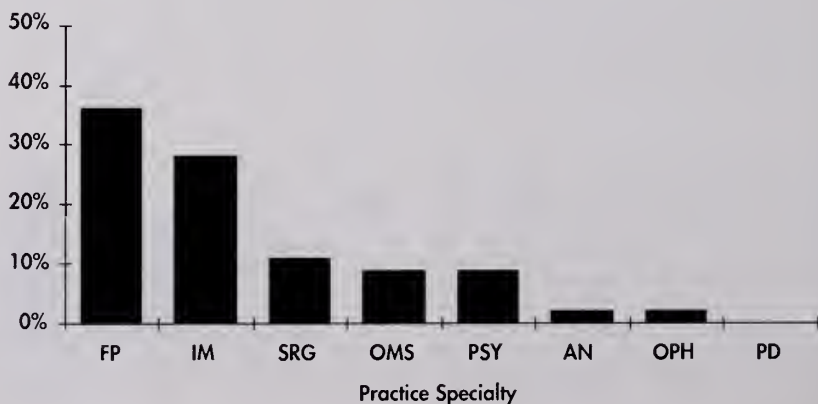


Fig. 4: Use of Narcotics as Long-term Therapy in Chronic Pain, by Practice Specialty



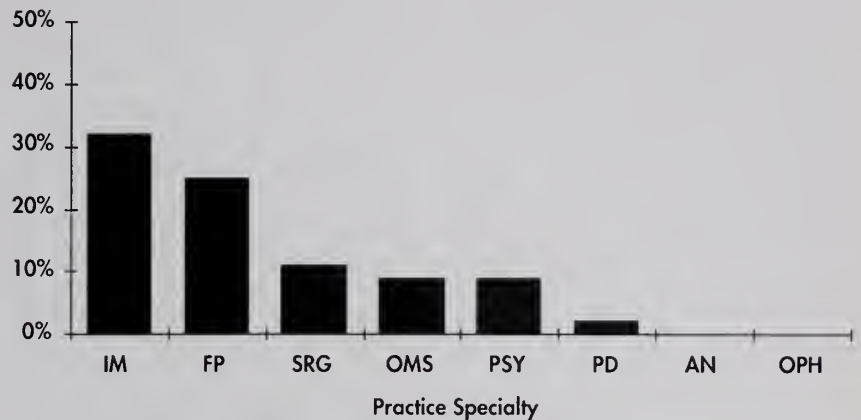
Question 10 combined the issues of chemical dependency and chronic pain treatment. Physicians were asked at what stage in prescribing for chronic pain they screen the patient for chemical dependency. "Screening" was not defined, and, therefore, the responses to this question only indicate whether or not any effort was made to identify the chemically dependent patient, without drawing any conclusions about the extent of that effort.

Of those finding this question applicable to their practices, 39% of the physicians said they screen for chemical dependency upon initiation of mild narcotics in treating chronic pain, while 32% do not routinely screen for chemical dependency. Those whose practice style is based on current textbook standards are far more likely to screen earlier in the process, with 55% screening at initiation of mild narcotic, as opposed to just 25% of those whose practice style is based on their own experience.

In addition to requesting information on treatment choices and prescribing amounts, the survey also asked the length of time physicians allowed to elapse between evaluations when a patient was receiving narcotic analgesics for chronic pain. The majority of physicians responding to Question 11 indicated that their preferred interval was either monthly or every one to three months. This question was subjected to analysis by region, utilizing a scale constructed on which a high score of 6 indicated all responses falling into one month or less, while a low score of 1 indicated a preferred evaluation interval of less than once per year. Looking at the four regions together, all groups produced scores of either 5.1 or 5.2, indicating that travel distances in rural areas do not appear to have any impact on the length of time for preferred evaluation intervals in treatment of chronic pain.

The final question relating to narcotic analgesics, Question 12, asked about the impact of the regulatory climate on physician behavior. The question asked whether the respondents had modified their prescribing practices based on the regulatory climate created in Minnesota by such

Fig. 5: Reduced Willingness to Accept New Patients as a Result of Regulatory Climate, by Practice Specialty



agencies as the state Board of Medical Examiners and the county medical examiners.

Of those responding, 46% reported having made no changes in their prescribing practices. For those reporting having made a change, the most common change made was more thorough documentation (39%), followed by a reduced willingness to prescribe narcotic analgesics for chronic pain (31%), and a reduced willingness to prescribe narcotic analgesics for acute pain (12%). (More than one answer was allowed.)

In addition, while it is significant to note that 15% of all respondents reported being less willing to accept new patients who may require prescriptions for controlled substances, fully 32% of the internists and 25% of family practice physicians reported this concern (Figure 5).

Of the four factors most often reported as having changed behavior, having been contacted by the BME as part of an investigation most often increased the likelihood of a change in behavior. For example, while just 11% of those not contacted by the BME expressed a reluctance to accept certain new patients based on the type of prescriptions they require, 22% of those who have been contacted by the BME expressed that concern.

#### Commentary

Narcotics are valuable in clinical situations involving moderate to severe pain, and physicians should not hesi-

tate to prescribe them when they are indicated for the comfort and well-being of patients who require analgesia or symptomatic relief not provided by non-narcotic analgesics. Examples of circumstances in which this class of drugs may be useful are severe pain associated with biliary, renal, or ureteral colic; pain of acute myocardial infarction; all stages of anesthesia; postoperative pain; obstetrics; trauma; burns; and the pain of terminal cancer.

**Acute pain:** The survey did not have any questions addressing acute pain specifically. Nevertheless, it is an issue that should be addressed. Concern was expressed by some members of the committee that acute pain may be inadequately treated in some cases.

Narcotic analgesics may be used in cases of acute pain where: 1) the pain is moderate to severe, 2) non-narcotic analgesics—e.g., acetaminophen, aspirin, or nonsteroidal anti-inflammatory drugs—have proven ineffective, and 3) the cause of the pain is clearly identified as organic.

The patient with moderate to severe acute pain may need aggressive management with narcotic analgesics. Several modalities may be considered in providing maximal pain relief, including controlled analgesia devices and epidural infusions in addition to the oral, intramuscular, or intravenous administration of narcotic drugs.

**Chronic benign pain:** The use of narcotic analgesics for chronic be-



nign pain (considered in this report to be long-term pain due to a non-terminal condition, as opposed to pain caused by a malignancy) continues to be debated among pain management experts. The survey used in this project indicated the diversity of opinion among practicing physicians in Minnesota about the use of narcotic analgesics in the treatment of chronic benign pain.

One of the concerns identified in the literature is the potential for diversion of prescription narcotic medi-

cations in this patient population. Careful screening of prospective patients for chemical dependence, or dependent behavior patterns, must be conducted prior to long-term use of narcotic analgesics.

If narcotic analgesics are used for the long-term treatment of chronic benign pain, the following principles excerpted from a report of the Massachusetts Medical Society Committee on Drugs and Therapeutics will be helpful in encouraging their proper use and in limiting the potential for

drug diversion.

The medical condition causing chronic pain in patients receiving narcotics should be carefully documented. The unsubstantiated statement "headache" or "back pain" in a medical record should not be enough to justify chronic narcotic therapy.

The medical record should include some statement documenting the need for continued narcotic therapy in a patient with chronic pain. Such a statement should state specifically why other forms of treatment

## Prescribing Issues Grant Summary

**T**his report is intended to describe physician prescribing practices for controlled substances in Minnesota. The conclusions reached by the Prescribing Issues Grant Advisory Committee are the product of many hours of discussion and review of the statewide survey results and literature. Generally speaking, the advisory committee acknowledged a diversity in physician prescribing practice styles and found that, overall, prescribing practices in Minnesota were very good. The recommendations contained in the report are intended to assist physicians in their efforts to continue prescribing controlled substances appropriately.

Broadly stated, the Prescribing Issues Grant Advisory Committee's conclusions are as follows:

- Narcotics are very useful in the treatment of moderate to severe pain.
- Underprescribing is a concern in the treatment of acute pain and cancer pain. Aggressive treatment with a controlled substance may be necessary for these types of pain.
- The use of narcotics for chronic benign pain is usually not indicated.
- On those occasions when narcotics are used to treat a patient for a chronic condition, documentation becomes of paramount importance.
- Among patients suffering anxiety disorders, there is a small

subgroup with chronic anxiety that may require continuous therapy with anti-anxiety drugs for six months or more.

- Treatment of the elderly patient with psychoactive medications should be carefully considered due to the physiologic changes in the elderly patient that may cause untoward consequences.

- Anti-anxiety drugs are not prescribed routinely or substituted for anti-depressants in the treatment of depression.

- Benzodiazepines are usually the drug of choice when anti-anxiety drugs are necessary for treating depression.

- Documentation has become increasingly important in all areas of health care. When prescribing controlled substances for chronic use, documentation becomes exceedingly important.

- The indicators for treating a chemically dependent patient with a controlled substance should be well established and well documented.

- Drugs should not be withheld from the drug-abusing patient when there is a clearly identifiable clinical indication.

- Physicians should be vigilant in protecting themselves against various forms of prescription fraud.

- More programs should be made available to physicians through continuing medical education courses that address the prescribing issue.

- Hypnotic drugs used for treatment of insomnia are most effective

on a short-term basis.

- When using hypnotic drugs on a long-term basis, periodic reassessment of the use of the drug and documentation are recommended.

- Stimulant-type medications have a clinically useful and ethically acceptable role in certain defined medical situations.

- The treatment of obesity will rarely include the use of stimulant medications.

- The most frequent use of stimulant medications occurs in children with the diagnosis of attention deficit disorder.

- The short-term benefits in athletic performance received from the use of anabolic steroids is far outweighed by the potential for dangerous side effects.

While diversity in prescribing practices is clearly recognized, physicians have a responsibility to be aware of the problems of prescription drug diversion and abuse when they prescribe a controlled substance. Physicians should guard against abuse while assuring that these medications are available to patients who need them for clearly documented medical reasons.

*(Editor's Note: the prescribing of stimulants and anabolic steroids, plus documentation, chemical dependency, fraud prevention, and physician education are discussed in Part 2 of the Prescribing Issues Grant Report, which will appear in the August issue of Minnesota Medicine.)*

are less preferable in the specific case.

Prescriptions should be documented in the medical records of patients receiving narcotics. When patients receive prescriptions in excess of the prescribed amount (for example, when a new prescription is issued a week early) the reason for the discrepancy should be clearly documented in the medical record.

Social factors can contribute to diversion. The physician or the physician's staff should document the patient's social situation adequately enough to be reasonably assured that drug diversion will not occur.

Patients on narcotic therapy need to be seen and examined by the prescribing physician at regular intervals to determine whether the need for strong analgesics still exists. The frequency of visits involving direct patient-physician contact should be determined in each case by the nature of the underlying disease.

Frequently useful non-narcotic drug therapy includes non-narcotic analgesics, anti-inflammatories, anti-depressants, sedatives, and anti-anxiety agents. The survey indicated that Minnesota physicians most often use non-narcotic analgesics and nonsteroidal anti-inflammatory drugs in chronic pain treatment.

Pain clinics are an alternative treatment method that need not be used as a last resort in treating chronic pain patients. Patients who are not surgical candidates and have not received relief from their pain after three to six months of treatment can often benefit from the multidisciplinary approach of a pain clinic.

However, lack of information about what pain clinics offer, lack of insurance, and lack of clinic availability in rural areas are all recognized deterrents to the utilization of pain clinics.

Nerve blocks, transcutaneous electrical nerve stimulator units, bio-feedback, relaxation training, counseling, and acupuncture are other possible non-pharmacologic approaches to the treatment of chronic pain.

**Cancer pain/terminal illness:** Narcotics can be used effectively in the treatment of pain experienced by can-

cer patients or those suffering from a painful terminal condition. Medication preparations are available that allow treatment to be effectively administered on an inpatient or outpatient basis.

Unwarranted fear of addiction or respiratory depression may cause physicians and other health care providers to be reluctant to prescribe or administer narcotics at dosages high enough to relieve pain adequately. Studies have not shown addiction to develop in a significant number of cases. Tolerance and physical dependence may occur; however, this is not a major problem when treating patients with cancer pain.

An ad hoc committee of the Hennepin County Medical Society has specifically addressed the issue of pain management in the dying patient in a recent position paper, "Management of Pain and Suffering in the Dying Patient" (published in the June 1990 issue of *Minnesota Medicine*). The following principles set forth in that paper are intended to facilitate appropriate management of pain and suffering in the patient with a terminal condition.

"Dying patients who possess the capacity for decision-making, or the appropriate surrogates of patients who do not have the capacity to make decisions, have the right to participate in decisions about the course of their own medical treatment, including the degree of pain relief desired. Health care professionals should make every effort to

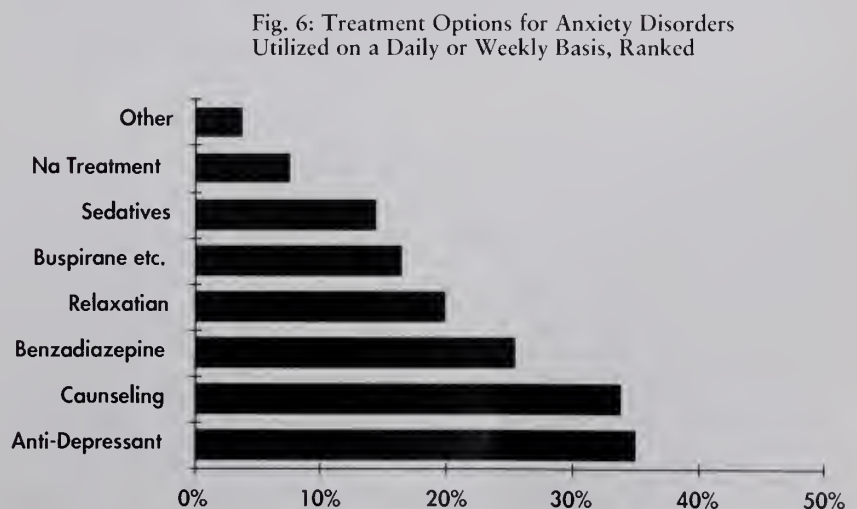
relieve the suffering of the dying patient, even if this requires intermittent or continued administration of significantly larger doses of narcotics and sedation, which in circumstances other than anticipated death would be considered inappropriate. *The goal of treatment is to relieve patient suffering to the fullest extent possible.* For dying patients there is no 'cap' dose; high doses may be required for relief of pain and suffering.

"The role of the physician in caring for the dying patient is to provide comfort and maintain dignity. Dying patients should be assured that maximal comfort will be provided even in the face of impending death, and even when the physical effects of narcotics, or other analgesics, such as falling blood pressure, declining rate of respirations, or altered level of consciousness, are present. On the other hand, it is unacceptable for health care providers to administer such drugs for the purpose of abetting the patient's suicide, or to deliberately cause the patient's death for reasons of compassion. In managing dying patients, health care professionals are not obligated to do that which violates their conscience or professional judgment, but have the duty to arrange for alternative care."

## Anxiolytics, Sedatives, Hypnotics

### Survey Results

Question 18 related to various options for treating anxiety disorder.





The responses to that question indicated that antidepressants and counseling are the most often used treatments for anxiety disorders. The next most common treatment option is the use of benzodiazepines, at 25%; followed by relaxation training, at 20%; buspirone-type anxiolytics, at 16%; and sedatives, at 14% (Figure 6).

As a follow-up, Question 19 asked simply, "In a persistent, severe, anxiety-disordered patient, will you be most likely to choose a benzodiazepine?" No clear consensus emerged in the answers to this question, with 37% of the respondents answering yes, 40% answering no, and 24% finding the question not applicable to their practices.

An interesting finding was revealed by examining responses to Question 19 based on the gender distribution of the physician's patient population. Among physicians who have patient populations that are half or more male, approximately one-third agree with the statement that they would be most likely to choose a benzodiazepine. However, for physicians with patient populations that are more than half female, that figure rises to 41%.

Question 23 asked physicians to consider short-term outpatient management of acute sleep disorders. Of those respondents who found Question 23 applicable to their practices, 62% agreed that sedative hypnotics were their treatment of choice. Psychiatrists were less likely to agree with that treatment option; just 38% said they utilize sedative hypnotics as their treatment of choice.

### Commentary

Anti-anxiety drugs and sedatives are useful in certain circumstances, e.g., panic disorder, generalized anxiety disorder, adjustment disorder, post-traumatic stress disorder, insomnia, and as preoperative medication.

The use of these psychoactive medications in the geriatric population is an area of concern identified in the literature. Clearly, these drugs are often helpful in this population. However, additional factors should also be considered, e.g., changing physiology, multiple disease proc-

esses, and environmental influences that can cause untoward consequences when psychotropic medications are prescribed for this population.

**Anxiety Disorder:** Anti-anxiety agents are occasionally indicated for long-term treatment of anxious personality disorder, panic disorder, obsessive-compulsive disorder, or post-traumatic stress disorder.

A small but significant subgroup of patients with persistent, chronic anxiety may require continuous therapy for six months or more. The benefits of continuous administration for more than four months have not been fully evaluated, although a few studies support their effectiveness for up to one year.

Treating elderly patients for anxiety with benzodiazepines may have undesirable side effects. Benzodiazepines may cause the elderly patient to become more anxious or excessively sedated. If drug therapy is necessary, the newer benzodiazepines with shorter half-lives may be the better choice for older patients.

Alternative forms of treatment for any patient may include counseling, relaxation techniques, biofeedback, or hypnosis.

On those occasions when a physician chooses to treat patients with anti-anxiety agents on a long-term basis, documentation of alternative forms of treatment tried and/or considered, as well as follow-up visits for evaluation of drug efficacy and safety are recommended.

**Insomnia:** Treatment of insomnia depends upon the etiology of the condition. Identification of the most likely cause of the sleep disorder, via a thorough sleep history, will help to avoid excessive reliance on drug therapy.

Although hypnotic drugs, such as Dalmane, Restoril, and Ativan, are often used to eliminate insomnia on a short-term basis, these agents do not produce physiologic sleep. Therefore, if drug therapy is indicated for insomnia on a long-term basis, documentation and periodic reassessment of the use of the drug are recommended.

Patients with the potential for addiction, or patients in the early

stages of recovery from chemical dependency, often experience sleep disturbances. Generally, insomnia in these patients should not be treated with controlled substances that have habituation potential.

Elderly patients spend more time in bed and more time awake in bed. Therefore, these patients have more frequent awakenings. These particular sleep patterns should be taken into account by a physician prior to prescribing a sedative/hypnotic drug.

Alternative forms of treatment for insomnia may include non-pharmacologic techniques, such as counseling, reassurance, sleep hygiene counseling, behavioral modification, or relaxation techniques. Antidepressants or antihistamines may also be a pharmacologic alternative for hypnotics in the treatment of sleep disorders, and referral to a sleep center may also be needed for those patients who don't respond to other alternatives.

**Depression:** Anxiety is often accompanied by depression. Antidepressants may resolve the anxiety and insomnia, along with the depressive symptoms. Therefore, adjunctive anti-anxiety drugs are usually not prescribed routinely or substituted for antidepressants. If anti-anxiety drugs are necessary, benzodiazepines are usually the drug of choice.

In older patients, depression may often be underdiagnosed because it is more difficult to diagnose. Mood depression may be confused with psychomotor and physiologic slowing, which may occur in many chronic diseases. When depression is diagnosed and pharmacologic therapy is indicated, antidepressants started at low doses and increased slowly can help reduce the risk for toxicity.

Non-addictive antidepressants may be used appropriately and in conjunction with other counseling for chemically dependent patients. Use of benzodiazepines is not recommended for the chemically dependent patient. MM

*This report of the Prescribing Issues Grant Advisory Committee represents the results of the review, study, and discussion of information and*

issues relating to the prescribing of controlled substances by Minnesota physicians. This report is not intended to be construed or to serve as a standard of medical care. Standards of medical care are determined on the basis of all of the facts and circumstances involved in an individual case and are subject to change as scientific knowledge and technology advance and patterns of practice evolve.

Specific recommendations contained in this report are intended to provide guidelines for patterns of practice, not for the care of a particular individual. This report may require revision from time to time as warranted by new scientific information, new drugs, or changing technology.

(Part 2 of this report will appear in the August issue of Minnesota Medicine and will include a statement by the Board of Medical Examiners on how it plans to use the report.)

*The Prescribing Issues Grant Advisory Committee members:*

James L. Anderson, M.D.  
Walter Bailey, M.D.  
Robert Benjamin, M.D.  
Mark Brutinel, M.D.  
Lou Erickson Dobrin, R.N.  
Richard Eisenberg, Ph.D.  
Sharron Erickson, R.N.  
Judy Gerald  
Kathryn Hirschorn, M.D.  
Robert Kaplan, M.D.  
Theresa Lang, R.N.  
John W. Lawrow, M.D.  
Catherine Lloyd, R.N.  
Richard D. Olsen, M.D.  
Robert Pearson, Ph.D.  
Judy Popp-Anderson  
Lawrence M. Poston, M.D.  
Timothy Pryor, M.D.  
Chuck Richards  
Lee Shockley, M.D.  
Peter A. Southorn, M.D.  
Raymond Struck, M.D.  
Jon Talsness, M.D.  
Eric Tangelos, M.D.  
Gary Tollefson, M.D., Ph.D.  
Herbert Whittemore, R.Ph.

Lisa K. Thompson Griggs, MMA,  
project coordinator  
Steve Dombrosk, MMA, survey  
research consultant  
Kristin Larson, MMA, project manager  
Lawrence Poston, M.D., editorial  
consultant

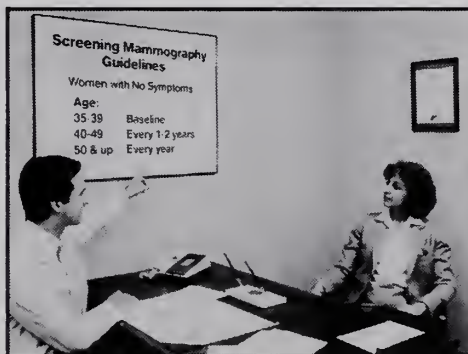
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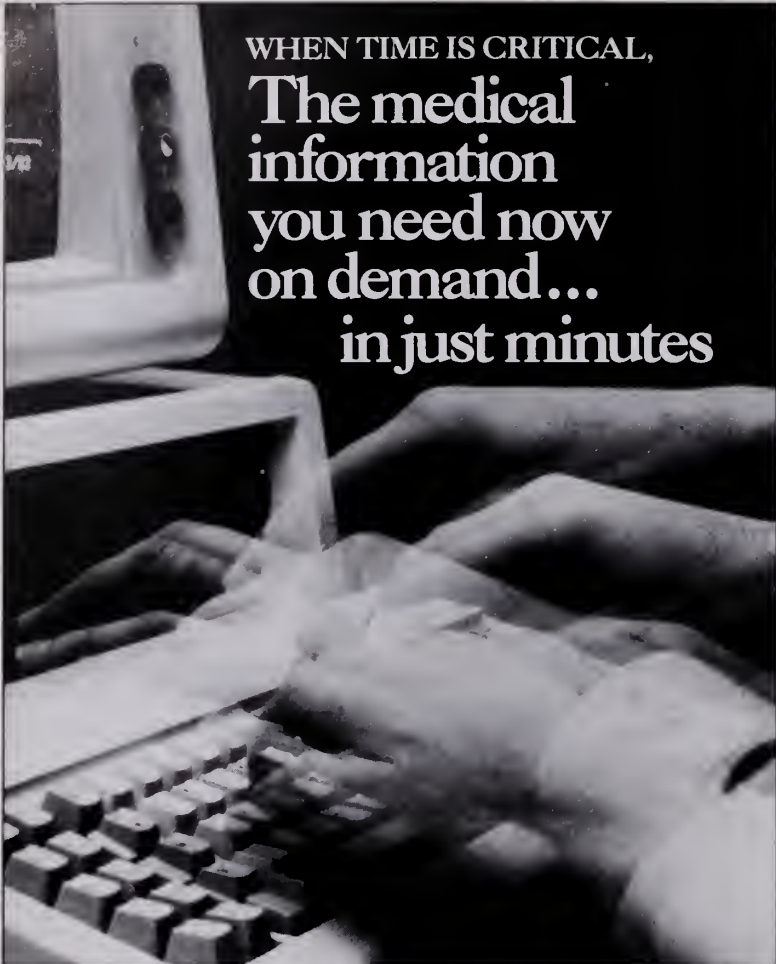


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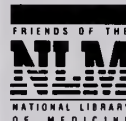


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# Some Medical Values Must Not Change

*Richard B. Tompkins, M.D.*

These are turbulent times for medicine. Yet, I have found a comforting stability that binds all physicians, whenever or wherever we may practice. I am talking about the enduring values of the medical profession—the fundamentals that do not and should not change.

My interest in medicine began early. My father was a family physician whose office was in our home. I remember making house calls with him when I was only six or seven and, for the first time, listening to a patient's heartbeat through a stethoscope. I was fascinated.

Our family lived in Norristown, Pennsylvania, a middle-class community west of Philadelphia. Most of the people of this small town worked on farms or in the local factories. My father tailored his office hours to the shift work of his patients, making sure his office was open before factory shifts began or after they were over.

My father went to Guadalcanal for three years during World War II. When he came back, a huge banner was strung across a group of row houses along the railroad tracks proclaiming, "Welcome Home, Dr. Tompkins!"

As a physician now myself, I can see so clearly the esteem my father's patients held for him. And he deserved it. More than anything else, I remember how my father stressed good patient care. He was highly respected and trusted in the community. His patients knew he had their best interests at heart.

Since that time, many things in medicine have changed. Medicine faces regulatory and financial pressures unlike those at any time in its history. The government and third-party payers require more documentation and provide less reimburse-



"We must not lose sight of the importance of patient care."

ment for the health care we deliver. Third-party payers often insist that an outside body review our treatment plans before they will agree to pay for the care we deliver. Utilization review keeps us constantly justifying hospitalization for our patients—subtly, and not so subtly, pressuring providers and hospitals to send patients home earlier and earlier.

In the past, we examined the patient and were able to do what we and the patient agreed was best. Now, we have an intermediary, Medicare and any other third-party payer, forced into the doctor-patient relationship. Payers limit the decisions we can make in patient care. Even before patients arrive in our offices, we are sometimes told what we can and cannot do for them. Yet in many instances, we are at legal and financial risk for the care these patients receive.

Meanwhile, the physician-patient relationship has changed. Physicians no longer sit on pedestals built of unquestioning community respect. Our patients ask more questions and want more details about the steps in

their diagnosis and treatment. Now, respect comes from communicating with our patients and from having command of current medical information. This, of course, is a change for the better, but a change nonetheless.

Although respect was important in my father's day, it is even more important today. We must continue the tradition in medicine of mutual respect—between physician and physician, between physician and administrator, and between physician and patient. Everyone in the medical field is undergoing change, and we must try even harder to show our understanding for one another.

Technology offers us opportunities that physicians in the '40s never even imagined. But we also know we can no longer dictate all the circumstances of patient care. Instead, we must work with the government, payers, patients, and our peers. This forces us to look at the cost-effectiveness of our practices, but it does not force us to abandon respect for our patients, respect for one another, or thorough, high-quality care.

While medical practice techniques and technology change, certain values and traditions stay the same. In our search for the answers to today's questions, we must not lose sight of the importance of patient care. We are obliged to pass on to other generations the kind of compassionate care for our patients that my father passed on to me. We can do this despite the adversity of medical practice today; for in adversity we often find opportunity. Indeed, medical practice has become more challenging, but the fundamental challenge remains the same—to provide the high-quality patient care and service that were the hallmarks of our profession in my father's day. **MM**



## *People and Places Making Medical News*

### **People**

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#### **Bolles Bolles-Rogers Award**

M. Elizabeth Craig, M.D., in May received the 1990 Charles Bolles Bolles-Rogers Award for her contributions to the medical profession. Craig, a Minnetonka pediatrician and leader in that specialty, received her medical degree from the University of Minnesota in 1945. In 1985, she became the first (and only) woman to be elected president of the Minnesota Medical Association.

The Bolles Bolles-Rogers Award was established in 1952 and is given to a physician nominated by his or her peers for outstanding work in research, achievement, or leadership. Craig is well known for her work fighting tobacco use and advocating for children's health.

#### **'U' Nursing Dean**

Sandra Edwardson, Ph.D., associate professor of nursing at the University of Minnesota, has been named interim dean of the university's School of Nursing, pending approval by the university's Board of Regents. Edwardson is scheduled to assume her new duties August 1. She will replace Ellen Fahy, who recently resigned after serving as dean since 1980.

Edwardson has been on the university faculty since 1979, and has been an associate professor since 1985.

#### **Outstanding Achievement Award**

John La Bree, M.D., professor of medicine and director of hospital outreach at the University of Minnesota, and Edmund Flink, M.D., Benedum professor of medicine at West Virginia University, received the University of

Minnesota's highest alumni honor, the Outstanding Achievement Award, at the medical school's June 1 commencement.

La Bree, a cardiologist, graduated from the university's medical school in 1940. He was dean of the school of medicine at the University of Minnesota-Duluth from 1975 to 1980. He was assistant vice president for health sciences at the university from 1980 to 1987, when he became director of medical outreach for the University of Minnesota Hospital and Clinic.

Flink, a 1938 graduate of the university's medical school, did his internship and residency at the university and was a professor of medicine before he left for West Virginia University in 1960 to become professor and chair of medicine. He became the Benedum professor of medicine at West Virginia in 1976 and is renowned for his work in nutrition, mineral metabolism, and endocrine function.

#### **Clinical Scholar Award**

Norma K. C. Ramsay, M.D., professor of pediatric hematology-oncology at the University of Minnesota, has been named the first winner of the Clinical Scholar Award of the university's hospital and clinic and medical school. Ramsay, a specialist in leukemia and the use of bone marrow transplantation in children, was presented the award at the university's medical school commencement June 1. The award will be presented annually to those who achieve outstanding accomplishments in patient-based scholarship, research, and patient care.

A native of Minnedosa, Manitoba, Ramsay has been at the University of Minnesota since 1969. She received her medical degree in 1968 from the University of Manitoba.

#### **Riverside Officers**

General surgeon Sandra Engwall, M.D., has been elected chief of medical staff at Riverside Medical Center in Minneapolis. Engwall, of Plymouth, Minnesota, earned her medical degree from the University of Wisconsin, Madison. Other staff officers are Ronald Groat, M.D., chief of staff-elect; Margit Bretzke, M.D., secretary/treasurer; and James Struve, M.D., past chief—all of Minneapolis.

#### **Low-cholesterol Glasnost**

A cholesterol management study using oat bran and long-acting niacin has been developed for the Ministry of Preventive Medicine in Moscow by a University of Minnesota researcher. Joseph Keenan, assistant professor of family practice and community health, has designed a study for Soviet physicians based on his research on the role of diet in the management of high cholesterol, with specific emphasis on the use and role of oat bran and long-acting niacin in such diets. Approximately 300 Soviet adults will participate in the six-month study, which will begin this fall.

The program is part of the Corporation for Soviet-American Enterprises (CSAE) "Heart to Heart" program, which will seek to provide American enterprise and products to the Soviets to meet their cardiovascular health needs. Keenan's program is one of the first medical ventures attempted by CSAE.

### **Places**

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#### **UMD Preceptorship Program**

The Family Practice Preceptorship Program of the University of Minnesota-Duluth received the

1990 Outstanding Rural Health Program Award from the National Rural Health Association. The award recognizes a statewide or regional program that promotes or facilitates the development of rural health care delivery systems. Factors taken into consideration include coordination, networking, innovation, and lasting impact.

The preceptorship program has achieved a 70 percent rate for placing its family practice graduates in communities with fewer than 20,000 residents. The program achieves such a high rate by assigning students to family physicians in surrounding rural areas. Many of the sites to which students are assigned are in, or contiguous to, traditionally underserved areas. During the second year of the program, students live with their assigned family physicians and their families for a three-day, three-night period to maximize their exposure to the everyday working environment of the small-community family physician and the lifestyle of that physician.

Much of the program's success is due to the generosity of the family physician preceptors. There are currently twice as many family physicians enrolled in the program as are needed to accommodate the student enrollment, allowing great selectivity in matching students and preceptors. In addition, the family physicians participating in the program are unpaid, and all teaching efforts, lodging, and meals for the students are donated by the physicians.

### Trimming the 'U' Hospital Budget

The University of Minnesota Hospital's Board of Governors approved a \$335 million budget in May for the 1990-91 fiscal year. The approved budget falls about \$14 million short of the previously proposed budget. Officials said they cut the budget because of declining admissions and average length of stay, which aren't predicted to improve within the fiscal year.

### Molecular Genetics No Longer

Molecular Genetics shareholders voted to change the company's name to MGI Pharma at its annual meeting in May. The new name reflects the company's shift away from genetic engineering to selling human pharmaceuticals. It sold the last of its genetic operations in 1989.

### Health Promotion Awards

Governor Rudy Perpich in May joined Minnesota Commissioner of Health Sister Mary Madonna Ashton in presenting the following second annual Minnesota Awards for Excellence in Health Promotion:

- Governor's Awards were given to two local health agencies for organizing community-wide health promotion projects. Clay-Wilkin Community Health Services was honored for its Tobacco Use Prevention Project, and Winona County Community Health Services was recognized for its Nonsmoking and Health Project.

- Minnesota Department of Health (MDH) Awards, given to projects targeted at specific groups within the community, went to the Tobacco-Free Schools Project and the Quin County TAD Project. The Tobacco-Free Schools is a joint effort of the American Lung Association of Minnesota and the Minnesota Department of Education aimed at helping local schools become "tobacco free." The TAD Project worked with "high-risk" fifth-graders in 25 northwestern Minnesota schools to help them avoid alcohol, tobacco, and other drug abuse. TAD is an effort of Quin County Community Health Services, which serves the counties of Kittson, Marshall, Pennington, Red Lake, and Roseau.

- The Commissioner's Award—for outstanding individual achievement in the field of health promotion—went to Steve Mosow of the

Health Futures Institute. Mosow is executive director of the nonprofit institute, which studies emerging health issues and encourages efforts to prevent disease.

### DRG Exemption for Bethesda

The Health Care Financing Administration, which controls federal spending for Medicare, has upheld HealthEast Bethesda Lutheran Hospital's appeal for a higher level of Medicare reimbursement. The decision allows HealthEast Bethesda until 1992 to analyze and establish its costs for patients covered under Medicare.

Bethesda is the first hospital in the area to receive an exemption from the Medicare-based DRG system. This DRG exemption allows the hospital to care for patients who are chronically ill and/or need extensive rehabilitation. Bethesda is licensed and federally certified as a hospital specializing in the care of complex medical problems requiring longer hospitalization.

### AMA on the Move

The American Medical Association will be moving its headquarters into a new building. Beginning August 27, its mailing address will be 515 North State Street, Chicago, Illinois 60610; phone, 312/464-5000.

## Socioeconomics

### AIDS Benchmark

Minnesota Department of Health officials in early May recorded the state's 700th AIDS case. The case was the 65th this year. If cases continue to be reported at the same rate, there will be 185 new cases reported this year, up from 175 in 1989.

Of the 700 cases, 400 people with AIDS have died. Eighty-seven percent of the cases involved gay or bisexual men, and 87 percent have been in the Twin Cities area.



## HMO Price Hikes

All but one of Minnesota's largest HMOs will need to increase their rates more than 10 percent for the next few years, according to a report released in May by the Citizens League. A main reason for the increase, according to Citizens League Associate Director Allen Baumgarten, is because the HMOs must meet stringent requirements established by the Minnesota Legislature in 1988 to set aside reserve funds. The Legislature set these solvency requirements to guarantee a suitable reserve in the event of bankruptcy. These requirements are higher than for HMOs in other states, but only half as high as the minimum reserve required of Blue Cross and Blue Shield of Minnesota, the state's largest health insurer.

According to the report, Group Health has sufficient funds to meet the requirements, but the other major HMOs must set aside the following amounts by 1993: Physicians Health Plan, \$18.4 million; MedCenters, \$16.4 million; Share, \$16.2 million; and Blue Plus, \$9.4 million.

## Picking Up the Health Care Tab

The portion of the nationwide health care bill paid by individuals is on the rise, according to Congress' General Accounting Office. After declining from 65 percent in 1965 to a low of 39.1 percent in 1982, individuals' share of health care spending rose to 42.2 percent in 1987. The share paid by businesses, after rising through the '60s and '70s, began declining in the early '80s, reaching 28 percent in 1987. The government's share peaked at 31.6 percent in 1982, and in 1987 stood at 30 percent. Americans spend between \$600 billion and \$650 billion a year on health care.

## Nursing Home Ratings

Minnesota nursing homes equalled or bested the national average in 27 of 32 measures of quality care

in the U.S. Department of Health and Human Services' second annual report on nursing home patient care. But Minnesota nursing homes, which comprise about 450 of the nation's 15,000 homes, appear to have slipped in some areas of care since the first report, which was released in December 1988. Many Minnesota homes received bad marks for drug and physical restraint use, sanitation, nutrition, safety, and bowel and bladder control programs. The 93-volume report, released in May, provides a snapshot of conditions found by inspectors in 1988 and 1989.

## Poor Students, Poor Workers, Poor Health

Research has shown that children who fail in school have employment difficulties as well as poor health, reported Minnesota researcher Robert W. Blum, M.D., M.P.H., Ph.D., in the May 17 *Journal of the American Medical Association*. Blum, of the Division of General Pediatrics and Adolescent Health, University of Minnesota School of Medicine, said, "A large multiethnic study of more than 12,000 urban youth found that for each of the five ethnic groups studied (white, black, Native American, Hispanic, and Asian), those who were doing poorly in school were at higher risk for virtually every (poor) health status indicator measured compared with peers who reported a school performance of at least average."

## Heard It through the Grapevine

Although Americans are concerned about the high costs of modern health care, they still choose their personal physician the old fashioned way: by word of mouth and convenience, a recent survey found.

"Nearly 60 percent of the public surveyed said cost was the main problem facing health care and medicine in the United States today," according to a report in the May 25 *American Medical News*. "But when the question was

brought closer to home, only 1 percent said cost was the main reason they chose the last new physician they saw. . . . Nearly 20 times as many said a recommendation from a family member or friend was the main reason they chose their last new physician."

Another 17 percent of the public respondents said they chose a new physician based on a referral from other professionals; 13 percent noted specific medical conditions; 9 percent said convenience was a factor; and 7 percent named a physician's reputation in the community.

The report is based on results from the American Medical Association's 1990 *Surveys of Physician and Public Opinion on Health Care Issues*. Conducted by the Gallup Organization in January and February, the physician survey included 1,009 respondents, and the public survey included 1,500 respondents.

## Innovations

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### New AIDS Drug

Hoffmann-La Roche Inc. in May announced that ddC (dideoxycytidine) will soon be available to AIDS and advanced ARC patients who are intolerant to or have not responded to AZT (zidovudine) and also are intolerant to the experimental drug ddI (dideoxyinosine). The U.S. Food and Drug Administration has approved this expanded access program.

Expanded access to ddC, also known as HIVID™, will be provided through an open-label safety study implemented on June 25. Physicians may call 1/800-ddC-21-HIV, Monday through Friday, from 9 a.m. to 8 p.m., Eastern Standard Time, for more information about entering a patient in the study. Because ddC has not been studied previously in patients

intolerant to ddI and AZT, the expanded access program will be carefully monitored to identify any unexpected toxic side effects, say Hoffmann-La Roche officials.

## Medical Research

### Muscular Dystrophy Insight

Duchenne muscular dystrophy—the most common and severe form—may start when the protein dystrophin is destroyed and can't anchor itself to the surface of muscle cells, a recent study indicates. Without dystrophin, muscle cells may not be able to handle calcium normally, according to Kevin Campbell, a professor of physiology and biophysics with the Howard Hughes Medical Institute at the University of Iowa College of Medicine, and colleagues. The research, which appeared in the May 24 issue of the British journal *Nature*, sheds new light on the 1987 discovery that dystrophin was lacking in Duchenne patients. Campbell's research offers an explanation of how the absence of dystrophin affects muscle cells.

### Key Findings in MS Research

Research from several different sources—some published in the May 24 *Nature*—appears to have isolated the source of multiple sclerosis (MS) to a few characteristic protein markers in a small number of immune cells. Researchers made their discovery after studying brain lesions of MS patients. Previously, it was believed the molecules responsible for MS were of a jumble of different cell types and proteins and, therefore, not so easily pinpointed. It is hoped this discovery signifies that the disease is more amenable to treatment than previously thought.

Multiple sclerosis afflicts 250,000 to 500,000 Americans.

### Non-smoker's Sentence: 18 Years to Life

Non-smoking men will live nearly 18 years longer than men who have

smoked throughout their lives, according to a study of 8,308 adults who lived and died in Erie, Pennsylvania, between 1972 and 1974. The study was published in the May issue of *Contingencies*, the journal of the American Academy of Actuaries. According to author Charles E. Chittenden, an Atlanta actuarial consultant, and colleagues, a 30-year-old man who smokes could expect to live to be 64, while a 30-year-old man who never started could expect to live to be 82.

### Multi-drug Lymphoma Treatment

An aggressive, five-drug treatment appears to fight mixed follicular lymphoma better than a single-drug treatment, according to Bruce Peterson, M.D., of the University of Minnesota and colleagues in a May report to the American

Society of Clinical Oncology. The researchers reported that up to 10 years after patients were diagnosed as having the cancer, 17 of 22 treated with the five drugs were still alive and free of the disease. Only 11 of 23 patients receiving a single-drug treatment were both alive and disease free.

Peterson said the average life expectancy for patients on the single-drug program is 6.5 years, and for patients on the multiple-drug program, it appears to be at least 10 years. Patients showed about the same side effects with the more aggressive treatment as the one-drug treatment, with one exception. One of about four or five multi-drug patients became nauseated, compared with one in 20 single-drug patients—a problem easily corrected with anti-emetic drugs, Peterson said. **MM**

## Bloomington, Minnesota

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HENNEPIN COUNTY MEDICAL CENTER/HENNEPIN FACULTY ASSOCIATES

## CALENDAR OF MEDICAL EVENTS

**July 27-30, 1990**

**ADVANCES IN CLINICAL  
MANAGEMENT OF  
INFECTIOUS DISEASES  
CONFERENCE**

**Co-Chairmen**

**Dale Gerding, M.D.**

**Phillip Peterson, M.D.**

**Cragun's Pine Beach Lodge & Conference Center  
Brainerd**

**August 16-17, 1990**

**Annual  
GYNECOLOGIC SURGICAL  
FORUM**

**Co-Chairmen**

**Stephen Cruikshank, M.D.**

**Kevin Hallman, M.D.**

**Scanticon Conference Center  
Plymouth**

**September 7, 1990**

**Third Annual  
CLINICAL MANAGEMENT  
OF OSTEOPOROSIS**

**Co-Chairmen**

**Robert Berkseth, M.D.**

**Charles Smith, M.D.**

**Minneapolis Hilton Hotel**

**September 14, 1990**

**PAIN MANAGEMENT STRATEGIES  
FOR PRIMARY CARE**

**Miles Belgrade, M.D., Chairman  
Hennepin County Medical Center**

**October 5-6, 1990**

**LIPID PROGRAM  
"Clinical Perspectives on Blood Lipids"**

**Burt Sharp, M.D., Chairman**

**Hyatt Regency Hotel**

**Minneapolis**

**October 12, 1990**

**Annual  
ADVANCES IN GERIATRIC CARE**

**Co-Chairmen**

**Robert Breitenbucher, M.D.**

**Patrick Irvine, M.D.**

**Hennepin County Medical Center  
Minneapolis**



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ACADEMIC  
AFFAIRS**

**Hennepin County Medical Center**

**HENNEPIN HCMC**

*For further information, contact the Office of Academic Affairs  
701 Park Avenue, Suite 4512, (Mail Code #865), Minneapolis, MN 55415; 612/347-2075*

## *A Calendar of Continuing Medical Education Courses*

*Provided through the MMA Medical Education Subcommittee on CME Resources.* For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; 612/378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

### JULY 1990

July 1-14 **Catherine the Great's Russia** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116; 612/698-1888.

July 6-22 **Scandinavia, Russia** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116; 612/698-1888.

July 9-13 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

July 12-13 **Neonatal Resuscitation Program** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Joyce Riedi, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-6923.

July 21-28 **8th Annual Medical Seminar** North Memorial Medical Center, Department of Family Practice; Plummer's Great Slave Lake Lodge, Northwest Territories, Canada. CONTACT: Winnipeg, Manitoba; 1-800/665-0240.

July 23-27 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

July 25-27 **Laboratory Diagnosis of Viral Infections** Mayo Medical Laboratories; Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

July 27-30 **Advances in Clinical Management of Infectious Diseases** University of Minnesota and Hennepin County Medical Center; Cragun's Conference Center, Brainerd, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

### AUGUST 1990

Aug. 9-10 **Neonatal Resuscitation Program** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Joyce Riedi, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-6923.

Aug. 16-17 **Annual Ob/Gyn Conference** Hennepin County Medical Center; Scanticon Conference Center, Plymouth, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Aug. 16-18 **Practical Surgical Pathology** Mayo Medical Laboratories; Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

Aug. 20-24 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

Aug. 22-Sept. 3 **Turkish Coast & Greek Isles** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116; 612/698-1888.

Aug. 25-Sept. 6 **Midnight Sun Express and Alaska Passage** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116; 612/698-1888.

Aug. 27-29 **The Physician's Office Laboratory** Mayo Medical Laboratories; Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

### SEPTEMBER 1990

Sept. 6-8 **Teaching Geriatric Medicine in Family Practice** University of Minnesota; Sheraton Midway, St. Paul, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 7 **3rd Annual Clinical Management of Osteoporosis** Hennepin County Medical Center, Hennepin Faculty Associates; Location to be announced. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Sept. 7-8 **Mayo Surgical Symposium** Mayo Clinic/Mayo Foundation; Mayo Clinic, Rochester, MN. CONTACT: Rita Kunz,



# Health One Medical Education

June 1

"AIDS TREATMENT FOR NURSES AND OTHER HOSPITAL STAFF, Northfield Hospital, 1-3 p.m.

June 14

"HEAD INJURY" - presented by Elizabeth Davis, MD, Sioux Valley Hospital, New Ulm, Thursday, June 14 at 12:00 noon

June 20-22

SECOND ANNUAL HEALTH ONE PHYSICIAN LEADERSHIP CONFERENCE - Grand View Lodge, Brainerd, Minnesota

July 12

"SECONDARY CAUSES OF HYPERTENSION," Presented by Paul Olson, MD, Sioux Valley Hospital, New Ulm, 12:00 noon.

August 9

"SEROLOGY," presented by Charles Horowitz, MD, Sioux Valley Hospital, 12:00 noon.

September 13, 14, 15

EMERGENCY MEDICINE CONFERENCE - Radisson South, Minneapolis, Minnesota

October 3

"ETHICAL DILEMMAS IN CARE OF THE TERMINALLY ILL," presented by Evelyn Van Allen, Network Coordinator for Minnesota Medical Association and member of Metropolitan-Mount Sinai Ethics Committee, Sioux Valley Hospital, New Ulm, MN 6:00 - 8:00 p.m.

October 6

THIRD ANNUAL HEALTH ONE PRACTICE OPPORTUNITY FAIR - a complimentary, full day symposium for residents and clinical fellows in multiple specialties - United/Children's Conference Center, Saint Paul, MN, 8:30 a.m. - 2:00 p.m.

October 6

14th ANNUAL CURRENT TRENDS IN OPHTHALMOLOGY - Hotel Sofitel, Bloomington, MN - Sponsored by Phillips Eye Institute (PEI)

For Further information, contact the Medical Education Office, Medical Affairs Division, Health One (612) 574-7895 or call toll-free 1-800-343-DOCS.

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Mayo Medical Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Sept. 10-14 **53rd Annual Course: Radiology 1990, Abdominal Imaging** University of Minnesota; Willey Hall, University of Minnesota, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 13 **Lasers in General Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Sept. 13-14 **Neonatal Resuscitation Program** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Joyce Riedi, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-6923.

Sept. 13-15 **Orthopedic Surgery Course: The Female Athlete** University of Minnesota; Holiday Inn Downtown, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 14 **Pain Management Strategies for Primary Care** Hennepin County Medical Center; Pillsbury Auditorium,

HCMC, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Sept. 14-15 **Medical Directors Conference** University of Minnesota; Place to be determined. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 14-15 **Pediatric Epilepsy: A Primary Care Physician's Perspective** MINCEP Epilepsy Care and Gillette Children's Hospital; Omni Northstar Hotel, Minneapolis, MN. CONTACT: Katherine Glunze, Gillette Children's Hospital, 200 University Avenue East, St. Paul, MN 55101; 612/229-3870.

Sept. 14-15 **Laser Laparoscopic Cholecystectomy** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Sept. 14-16 **Surgery Medical Clinics for Family Practice** University of Minnesota; Grand View Lodge, Brainerd, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 15 **Pediatric Pulmonology for the Primary Care Practitioner** Minneapolis Children's Medical Center; Minnea-

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| ENDOCRINOLOGY  | ONCOLOGY          |
|                | ORTHOPEDICS       |
|                | (Sports Medicine) |

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polis Children's Medical Center, Minneapolis, MN. CONTACT: Kathy Ingerson, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-5884.

Sept. 19-21 **Infertility: Advancements in Laboratory & Clinical Procedures** Mayo Medical Laboratories; Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

Sept. 21-22 **Tumor Immunobiology in Head and Neck Cancer** University of Minnesota; Radisson University Hotel, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

## OCTOBER 1990

Oct. 3 **Annual A. B. Baker Dinner Lecture** Hennepin County Medical Center, Hennepin Faculty Associates; Marriott City Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Oct. 3-6 **53rd Annual Course: Principles of Colon and Rectal Surgery** University of Minnesota; Mayo Memorial Auditorium, University of Minnesota, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME,

Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Oct. 4-5 **Annual Forensic Science Seminar** Hennepin County Medical Center, Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Oct. 5 **Current Management of Low Back Pain** Abbott Northwestern Hospital; Wyndham Garden Hotel, Atlanta, GA. CONTACT: Cathy Elmstrom, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Oct. 5-6 **Lipid Program: Clinical Perspective on Blood Lipids** Hennepin County Medical Center; Hyatt Regency Hotel, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Oct. 6 **3rd Annual Current Topics in Laboratory Medicine: Phlebotomy** Mayo Medical Laboratories; St. Luke's Hospital, Kansas City, MO. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.



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**Family Physician/Emergency Room:** Full-time salary working weekends, primarily emergency room. Flexibility available. Falls Medical Center, PA, 105 Shorewood Drive, International Falls, MN 56649. Please contact: A. Johnson, M.D., or A. Marc Gorden, M.D., at 218/283-9431 for more information. (R)

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**Family Physician:** Dynamic 13-physician, three-office, single-specialty practice in northwest Minneapolis suburbs seeking additional associate, BE/BC; ob available. Competitive salary, full benefits, reasonable call and hospital rounds schedule. Contact: Dr. Ken Kephart, Northwest Family Physicians; 612/476-6776. (\*R)

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**Outstanding Opportunity for a BE/BC Family Physician** to join a progressive medical community with eight physicians oriented to family practice. Details will be given by contacting: Dr. Tim Schmitt, Wadena Medical Center; 218/631-1360, or Jim Lawson, Administrator, Tri-County Hospital, Wadena, MN 56482; 218/631-3510. (R)

**Waseca, Minnesota:** Family practice physician to join four family practitioners. Population 8,000. One hour south of Burnsville Center; lakes; industry. Salary negotiable. Clinic-adjacent hospital. Ample free time to enjoy family life. Contact: James W. Dey, M.D., or Ruth Hawker, 501 North State Street, Waseca, MN 56093; 507/835-3110. (R)

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**Wholesale Life Insurance**—No front load and no surrender charge. Example: 35-year-old ns male, \$500,000. First-year premium—\$2,000. First-year guaranteed cash value—



\$1,720. Offered by Ameritas Life Insurance Corp., a hundred-year-old Best's rated A+ (superior) company. For further information contact: Greybull Insurance Services, 1313 5th Street SE, Minneapolis, MN 55414; 612/379-3860. (\*10/89-R)

**St. Cloud**—Minnesota's fastest growing city—family practice physician, two pediatricians, two ob/gyns, BE/BC to join supportive primary care staff in a growing, successful, and innovative prepaid practice. New clinic facility. Full range of fringe benefits (competitive salary, liberal vacation, two weeks' education leave, retirement fund, etc.). Contact: Physician Services, Central Minnesota Group Health Plan, 1245 15th Street North, St. Cloud, MN 56303; 612/253-5220. An equal opportunity employer.

(R)

**Family Physician or Internist:** Busy family practice/industrial practice located on the beautiful North Shore of Lake Superior. Outdoor activities abound: hiking, skiing—xc and downhill—fishing, etc. Two-physician practice is looking for a third physician for a rewarding practicing. VA nursing home is a near future reality. Contact: Jon Ward, Manager, Silver Bay Clinic, Ltd., Silver Bay, MN 55614; 218/226-4431. (12/89-R)

**Radiologist:** A three-physician radiology group is seeking a fourth radiologist with experience and interest in interventional radiology. Dickinson County Hospitals is a

progressive, 126-bed, two-hospital system located in Iron Mountain, Michigan's Upper Peninsula. We have a service-area population of over 45,000. Contact and/or send resume to: Drs. Specht/Shampo/Manzano, Radiology Department, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4565.

2-7/90

**Family Practice:** Physicians seeking a BE/BC family practice physician for the Norway, Michigan, service area. The physician would have the option of joining one of the existing practices and/or setting up his/her own practice. Anderson Memorial Hospital is a part of Dickinson County Hospitals and has a service-area population of over 45,000. Contact: Dr. Paul Hayes, Anderson Memorial Hospital, Main Street, Norway, MI 49870; 906/563-9243, or office 906/563-9255.

2-7/90

**Mankato:** FP partner to join four board-certified family physicians, ages 31-41, in fast-growing, full-range practice, includes ob. Population 40,000+. Seventy miles to Twin Cities. Four colleges nearby. 90+ physicians on hospital staff. Academic appointment available. Call: Tony Giefer, M.D. 507/387-8231. (1/90-R)

**Family Practice—Hospital-Sponsored Clinic Opportunity:** Dynamic growth-oriented hospital in beautiful north-central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus, and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435; 612/835-5123. (R)

**Urgent Care/Primary Care** physicians for over 90 group positions in metropolitan Phoenix/Tucson, Arizona. Excellent compensation/partnership opportunities. Other quality positions nationwide. Send CV or call: Mitch Young (MM), PO Box 1804, Scottsdale, AZ 85252; 602/990-8080. (\*1/90-R)

**BE/BC Family Practice and Internal Medicine Physician:** Excellent opportunity to join well-established, progressive 20-physician multispecialty group located in an economically sound community of 20,000 (drawing area of 30,000), 65 miles south of the Twin Cities. Full membership after one year. Competitive salary and fringe benefit package. Contact: Ed Durst, M.D., or Terry Tone, Administrator, 134 Southview, Owatonna, MN 55060; 507/451-1120. (2/90-R)

**Orthopedic Surgeon:** A progressive, 126-bed, two-hospital system is seeking an orthopedic surgeon to join an established practice in the Iron Mountain area of Michigan's

## ST. CLOUD MEDICAL GROUP, P.A.

St. Cloud Medical Group, a 22 physician Multi-specialty Group, is now recruiting BC/BE physicians in the following specialties:

- Occupational Medicine
- Pediatrics
- Family Practice

Guaranteed first year salary. Production program thereafter with a full fringe benefit package.

If interested in joining a progressive Medical Group in Central Minnesota, call or send C.V. to:

Daryl G. Mathews  
Administrator  
St. Cloud Medical Group  
1301 W. St. Germain Street  
St. Cloud, MN 56301  
612-251-8181

Upper Peninsula. Must be BE/BC. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Dr. Roberts will guarantee \$250,000 plus malpractice insurance, office space, CME, vacation, and relocation expenses. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4500. \*2-8/90

**Family Physicians:** Well-established south suburban Minneapolis family practice group seeks associates part/full time to staff day clinic. Excellent call schedule, salary, and fringe benefits. Also seeking locum tenens to staff PT/FT Urgent Care Centers and/or day clinic. Contact: Administration, Family Physicians, P.A., 612/435-4125, or send inquiries to Suite 100, 14050 Nicollet Avenue South, Burnsville, MN 55337. (\*9/89-R)

**Dermatologist, Psychiatrist, Allergist, Internal Medicine, Family Practice:** A progressive, 126-bed, two-hospital system is seeking the above specialties to establish practices in the Iron Mountain area of Michigan's Upper Peninsula. Must be BE/BC. Located 100 miles north of Green Bay, Wisconsin. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Diagnostic capabilities include a CT scanner, CO<sub>2</sub> laser, and a fully staffed special diagnostic department. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4500. \*2-8/90

**Positions Available in Family Practice, Internal Medicine, Obstetrics/Gynecology, General Surgery, and Pediatrics:** 28-physician multispecialty clinic seeking additional physicians in FP, IM, Ob/Gyn, GS, and Peds departments. Interstate Medical Center offers a competitive salary, comprehensive benefits, and the support and team approach of a multispecialty environment. Red Wing is a mid-sized community along the bluffs of the Mississippi River only 40 miles from the Minneapolis/St. Paul area. Area highlights include an excellent school system, a growing cultural environment, water recreation, skiing, and an active business climate. Red Wing has all the benefits of a metro area in a serene setting. For additional information, please call or send CV to: Don Bruns, M.D., Highway 61 West, Red Wing, MN 55066; 612/388-3503. \*3-8/90

**Internist** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809. (\*3/90-R)

**Small Hospital** 45 minutes west of Minneapolis has noted geriatric program. First-year minimum salary of \$50,000, plus 37 percent adjusted revenues, four weeks' vacation, two weeks' CME, 401(K) pension plan, malpractice. Lake-side community. Call: Wanda Parker at 1-800/221-4762, or collect 212/599-6200. \*4-7/90

## Rewarding Practice Opportunities

Large multispecialty group offers practice opportunities throughout its regional network in eastern North Dakota and the western Minnesota lakes country.

Each clinic enjoys considerable autonomy with the benefit of over 45 specialists practicing in a 400 bed tertiary and trauma center within minutes by air ambulance or lifeflight helicopter.

The region offers abundant recreational, athletic, hunting, fishing and cultural opportunities year round.

The following specialties are seeking BC/BE physicians:

|                   |             |
|-------------------|-------------|
| ENT               | FAMILY      |
| INTERNAL MEDICINE | PRACTICE    |
| (Procedural)      | OB/GYN      |
| OPHTHALMOLOGY     | ORTHOPEDICS |
| PEDIATRICS        | GENERAL     |
| DIAGNOSTIC        | SURGERY     |
| RADIOLOGY         |             |

Guaranteed salary with excellent benefit package.

Bonus arrangements available at some locations.

Please contact Robert C. Montgomery, M.D., Chairman, Physician Recruitment, 737 Broadway, Fargo, ND 58123 or call 1-800-437-4010, ext. 2151



**Fargo Clinic**  
MeritCare

**Family Practitioner** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809. (\*3/90-R)

**Central Plains Clinic, Ltd.,** a 70-physician multispecialty group, is seeking BC/BE physicians in the following specialties: dermatology, infectious disease, internal medicine, neurology, and otolaryngology. Central Plains Clinic is located in Sioux Falls, South Dakota, a progressive regional tertiary care medical center with a very favorable tax climate. Guaranteed first-year salary with incentive thereafter along with full benefit package. Contact: Michael R. Ferrell, M.D., Central Plains Clinic, Ltd., 2727 South Kiwanis Avenue, Sioux Falls, SD 57105; 605/331-3490. \*1-7/90

**Small, Progressive Hospital** in southwestern Iowa seeking third family practice physician. First-year minimum income guarantee \$70,000, plus benefits. Omaha, Nebraska, within hours' drive. Specialists from Omaha provide clinics/backup. Call: Wanda Parker, 1-800/221-4762, or collect 212/599-6200. E.G. Todd Associates, 535 Fifth Avenue, Suite 1100, New York, NY 10017. \*4-7/90

**Family Practice, Internal Medicine, Pediatrics, Urology, Obstetrics and Gynecology, Dermatology, and Orthopedics** practice opportunities available at the Faribault Clinic. The



Faribault Clinic is a multispecialty group practice of 14 physicians. Faribault is located 50 miles south of Minneapolis on I-35. For more information contact: Ray W. Wood, M.D., or Ken Smith, Administrator, 924 NE 1st Street, Faribault, MN 55021; 507/334-3921. (4/90-R)

**Forest Lake Doctor's Clinic** is seeking a BC/BE family physician, pediatrician, ob/gyn, and internist to join 10-physician multispecialty group. Located 25 miles north of Minneapolis-St. Paul, in progressive community, with excellent schools, many beautiful lakes, recreational activities, golf, fishing, boating, skiing. Local hospital directly across street. Contact: Dr. Harvey J. Frank or Dr. Doug Sill, 121 SE 11th Avenue, Forest Lake, MN 55025; 612/464-7100.

(4/90-R)

**Psychiatric Practice for Sale** in Hutchinson, Minnesota. Completely modern facility. Approximately two-thirds hospital work (in a 12-bed mental health unit), one-third outpatient cases. Must be BC/BE. Patient base covers a wide area—from the Twin Cities to South Dakota. For more information contact: Eileen Fluegel, 612/587-8457.

(4/90-R)

**Internist:** Full-time position as chief of Medical Services available July 1. Position includes provision of medical care, coordination of medical services, supervision of admission clinic, direction of infection control program, and responsibility for quality assurance activities. Regular

working hours, competitive salary, paid vacation, opportunity to teach medical students, and excellent benefits package make this an attractive position for the person who wants ample personal time. Contact: Myron Malecha, M.D., Medical Director, Anoka-Metro Regional Treatment Center, 3300 4th Avenue North, Anoka, MN 55303; 612/422-4240. 3-7/90

**Family Practice:** Marshfield Clinic, a multispecialty group practice with nearly 350 physicians, is seeking BE/BC family practitioners to join expanding regional centers. Practice opportunities range in size from single specialty groups of three to multispecialty groups of 25. Positions available in six locations: two in northwestern Wisconsin within 70 and 90 miles of Minneapolis, two in north-central Wisconsin within 80 and 90 miles of Lake Superior, and two in central Wisconsin within 25 and 35 miles of Marshfield. Full specialty consultation readily available. Positions offer strong economic stability combined with exceptional recreational, cultural, and educational opportunities. Starting salary up to \$92,160 with salary in two years up to \$116,400. Fringe benefit package outstanding. Send CV and references to: David L. Draves, Director, Regional Development, 1000 North Oak Avenue, Marshfield, WI 54449; or call collect 715/387-5376.

\*1-7/90

**Family Physician:** Full-time senior staff position available October 15. Regular working hours and light call make this

## YOUR SPECIALTY IS WORTH AN EXTRA \$8,000 A YEAR.



If you're a resident in any of the following specialties:

- anesthesiology
- orthopedic surgery
- general surgery
- neurosurgery
- colon/rectal surgery
- cardiac/thoracic surgery
- pediatric surgery
- peripheral/vascular surgery
- plastic surgery

you could be eligible for an \$8,000 annual stipend in the Army Reserve's Specialized Training Assistance Program.

You'll also be using your skills in a variety of challenging settings, from major medical centers to field hospitals, and there are opportunities for conferences and continuing education.

We know your time is valuable, so we'll be flexible about the time you serve. Your immediate commitment could be as little as two weeks a year,

with a small added obligation later on. If you'd like to talk to an Army Reserve physician, or if you'd like more information about the stipend program or other medical opportunities, call our experienced Army Reserve Medical Counselor:

**MAJ Larry Matthews**  
One Appletree Square, Suite 1036  
Bloomington, MN 55425-1616  
(612) 854-7702

**BE ALL YOU CAN BE.<sup>®</sup>**  
**ARMY RESERVE**

an attractive position for the person who values free time. Excellent salary, benefits, and paid vacation. Contact: Myron Malecha, M.D., Medical Director, Anoka-Metro Regional Treatment Center, 3300 4th Avenue North, Anoka, MN 55303; 612/422-4240. 3-7/90

**Family Physician:** Tired of call? Want predictable hours? Full-time physician needed to work three days per week in our outpatient family practice clinics. Salary plus bonus and benefits including malpractice insurance. Contact: Todd Patton, M.D., or William Wenmark, CEO, c/o NOW Care Medical Centers, 13031 Ridgedale Drive, Minneapolis, MN 55343; 612/593-9010 (5/90-R)

**Internal Medicine:** Minneapolis, Minnesota, suburban multispecialty group with seven internists is seeking a general internist with or without subspecialty interest. One-hospital practice, excellent salary and benefits program. BC/BE. Contact: Sim Gesundheit, M.D., 612/571-0457 or send CV to: Columbia Park Medical Group, 6200 Shingle Creek Parkway, Suite 480, Brooklyn Center, MN 55430. 3-7/90

**Family Practice:** Marshfield Clinic, a multispecialty group practice with nearly 350 physicians, is seeking a seventh BE/BC family practitioner for one of its expanding (12-physician) regional centers in northwestern Wisconsin; within approximately two hours of Minneapolis/St. Paul and/or Lake Superior. The ability to perform cesarean

sections is a prerequisite for this position. Construction of a new \$2 million clinic is scheduled for mid-1990. Position offers an excellent professional environment combined with an exceptional blend of recreational, cultural, and educational opportunities. No start-up expense. Salary negotiable (\$90,000+), with outstanding fringe benefit package (includes clinic self-insured malpractice). Opportunity to practice broad spectrum family practice with on-site access to a variety of consultants and time to enjoy family and recreation. Send CV and references to: David L. Draves, Director Regional Development, 1000 North Oak Avenue, Marshfield, WI 54449 or call collect at 715/387-5376. \*1-7/90

**\$80,000+:** Physician needed to provide primary care in a regional treatment center that provides treatment for persons with chemical dependency/psychiatric problems and developmental disabilities. Fringes include approximately 4 weeks' vacation plus 2 weeks' CME, sick leave, paid malpractice, deferred comp to \$7,500. Limited call (every ninth to 10th night). Only 90 miles west of Minneapolis/St. Paul. Excellent schools. Call or write: Larry Olson, M.D., Medical Director, Willmar Regional Treatment Center, Box 1128, Willmar, MN 56201; 612/231-5100. EOE. \*2-7/90

**Pediatrician:** 115-physician multispecialty clinic in the Fox River Valley of northeastern Wisconsin desires a BC/BE pediatrician to join department of 17 BC/BE pediatricians.

*Definitely*  
**TIMES ARE<sup>V</sup> CHANGING...**  
(and so are we!)

### East Range Clinics, Ltd.

Clinics at Virginia, Aurora, and Eveleth, Minnesota

For **NEW** information about practice opportunities in:

- Family Practice
- OB/GYN
- Internal Medicine
- Orthopedics
- Dermatology

Excellent W2 taxable income plus productivity bonus. Generous benefit package. Eligibility for full partnership after one year.

Call or send CV  
in strictest confidence to:  
Rosemarie Slocum  
Director, Physician Recruitment  
East Range Clinics, Ltd.  
910 6th Avenue North  
Virginia, Minnesota 55792

(218) 741-2558  
(218) 741-0150  
800-662-5728 (MN Only)

## PRIMARY CARE PHYSICIANS

Ramsey Clinic, a 215-physician multi-specialty group practice operates a small network of branch clinics that extends from the Minneapolis/St. Paul metro area to rural communities in Minnesota and Wisconsin. Because of expanding practices, primary care physicians are being considered for positions at:

Baldwin, Wisconsin  
Rush City, Minnesota  
Osceola, Wisconsin

Physicians practicing in the branches enjoy the many advantages of membership in a large group practice and the atmosphere of a private practice clinic. The positions offer attractive salaries, complemented by an outstanding benefits package. For particulars, kindly forward your C.V. or contact: Lories A. Stoll, Director of Professional Services, Ramsey Clinic, 640 Jackson Street, St. Paul, MN 55101-2595; (612) 221-3067 or David Perry, M.D. at (612) 221-1868.

***Ramsey Clinic***



## Group Health, Inc. Minneapolis/St. Paul

**URGENT CARE/FAMILY PRACTICE FLOAT POSITION** — Group Health, Inc. is looking for a clinic based BC/BE Family Practice Physician. This position involves no hospital call. This newly created position would require that the qualified individual work 40 hours per week with the hours divided between Group Health's evening and weekend urgent care centers and weekday clinical settings. The clinic and urgent care locations may vary based on specific clinic needs. Qualified physicians would receive an excellent salary, generous benefits and paid malpractice.

Group Health, Inc., a progressive HMO established in 1957, is one of the largest multispecialty group practices in the Midwest with nearly 300 physicians on staff and a membership approaching 300,000.

For further information on this exceptional opportunity please send curriculum vitae to:

Physician Services  
Group Health Inc.  
2829 University Ave. S.E.  
Minneapolis, Minnesota 55414  
612-623-8777

Two-year guarantee plus comprehensive benefit package offered. The community offers a superb recreational, cultural, and family environment in which to practice. For information please call or write: Roger Rathert, M.D., La Salle Clinic, 411 Lincoln Street, Neenah, WI 54956; 414/727-2702. 2-7/90

**For Sale:** Solo ob/gyn practice—northwest Minneapolis, gross over \$200K with excellent potential for expansion. Reply to: Minnesota Medicine (841), 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414. \*2-7/90

**Wisconsin—Family Practitioner Needed** by progressive and growing group practice in west-central Wisconsin city of 55,000. Ninety miles from Minneapolis/St. Paul. Primarily prepaid practice with large component FFS. Highly competitive salary with excellent fringe benefits. Practice high-quality care in a good recreational area. Send CV to: Stuart Lancer, M.D., P.O. Box 3217, Eau Claire, Wisconsin 54702-3217; 715/836-8552. \*2-7/90

**Family Practice:** Excellent salaried practice opportunity for BC/BE family physician with Northland Medical Associates of Morgan Park. The community, located in the western end of Duluth, offers outstanding quality of life: desirable family environment, excellent educational institutions, renowned trout streams, skiing, hunting, boating, and dog sledding. Full-time and part-time positions open; flexible scheduling potential. Excellent compensation

package, production incentive, if desired. Send CV to: Susan Streitz, Northland Medical Associates of Morgan Park, 1150 88th Avenue West, Duluth, MN 55808. Or call collect: 218/626-2775. \*3-8/90

**Board Certified/Board Eligible Ob/Gyn** to join existing two-person practice at the 24-physician multispecialty Winona Clinic, Ltd., in Winona, Minnesota. Located in the beautiful Mississippi River Valley of southeastern Minnesota. The community, with a 40,000 population trade area, is the host of three colleges and a diverse industrial base. Send CV to: J. B. Knuesel, Administrator, Winona Clinic, Ltd., 420 East Sarnia, Winona, MN 55987. 3-8/90

**Pediatrician** to join existing two-person practice at the 24-physician multispecialty Winona Clinic, Ltd., in Winona, Minnesota. Located in the beautiful Mississippi River Valley of southeastern Minnesota. The community, with a 40,000 population trade area, is the host of three colleges and a diverse industrial base. Send CV to: J. B. Knuesel, Administrator, Winona Clinic, Ltd., 420 East Sarnia, Winona, MN 55987. 3-8/90

**Family Practice:** Immediate opportunity for a family practitioner in southwestern Minnesota. Excellent first-year salary benefits package. Contact Gregory Campbell, Assistant Administrator, 1207 6th Avenue South, St. James, MN 56081; 507/375-3261. 3-8/90

**Minnesota/Wisconsin:** Dermatology, family practice, psychiatry, surgery, locum tenens. Urban and rural locations, single specialty and multispecialty groups, strong hospital support. Contact: LifeSpan Health Care Services, 800 East 28th Street, Minneapolis, MN 55407; 612/863-4193. Ask for Jerry Hess. \*3-8/90

**Emergency Medicine:** Compensation package over \$110,000 per year. Career opportunities in emergency medicine with company providing emergency physician services to 14 hospitals in Iowa. Physicians work as independent contractors, with a guaranteed hourly compensation, excellent benefit package, and paid malpractice insurance. Physicians must be certified in ACLS and have pertinent experience in emergency medicine. Part-time positions also available. Please contact: Lowell Sisson, Emergency Practice Associates, PO Box 1260, Waterloo, IA 50704, or call 1-800/458-5003. 3-8/90

**Sanibel Island for Rent:** 2 BR condo, by day or week, on beautiful Sanibel Island, Florida. Home of famous wildlife refuge. Swim, shell, or just relax. Extensive bike paths, two Island golf courses. \$445 per week through 12/15/90, then \$775 per week through season. Call Toni, 612/869-1404. 7-12/90

**Downtown Office Space for Rent:** Physician in the Medical Arts Building, 825, wishes to sublet to another physician on a part-time basis for the purpose of sharing overhead expenses. Call: 612/370-0553. (6/90-R)

**Time for Living:** Time for family, children, traveling, hobbies, sports, hiking, music, boating, art, skiing, community activity. Madison Ambulatory Care Center: outpatient family practice, occupational health. Approximately 25 hours per weeks, very flexible scheduling. Salary \$30,000 plus paid health, life, malpractice, 401K (total package worth in excess of \$40,000). Contact: David Goodman, M.D., MedicEast, 2810 East Washington Avenue, Madison, WI 54704; 608/244-1213. (6/90-R)

**Mankato Clinic, Ltd.** is seeking BE/BC physicians in the following specialties: dermatology, invasive cardiology, ob/gyn, oncology/hematology, pulmonary medicine, vascular surgery, family practice, pediatrics, and general internal medicine. The Mankato Clinic is a 43-doctor multispecialty group practice in south-central Minnesota with a trade area population of +200,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information call: Roger Greenwald, Administrator, or Dr. B. C. McGregor, 507/625-1811, or write: 501 Holly Lane, Mankato, MN 56001. (6/90-R)

**Family Practitioner** needed for several openings in Florida, Texas, and Northern California. Practice quality medicine on quality people—where the patient's needs come first. Reach new heights. Call USAF Health Professions collect: 612/331-2856. Please send CV to: Col. William E. Patterson, HQ USAFRS/RSH, Randolph AFB, TX 78150.

\*1-7/90

**Family Practice, Ob/Gyn, Internal Medicine, Urgent Care:** Opportunities available for BC/BE physicians to join independent, multispecialty group with 10 clinics in the Minneapolis/St. Paul metropolitan area. Fee-for-service and prepaid patients, highly competitive earnings, excellent benefit package. Reply: Nancy Borgstrom, Aspen Medical Group, 1020 Bandana Boulevard West, St. Paul, MN 55108; 612/641-7185.

\*1-7/90

**Program Director, Family Practice Physician Faculty:** Family Practice and Community Health, Medical School, University of Minnesota, is inviting applications for a full-time faculty position serving as program director of the residency program for five affiliated units. Qualifications: family physician, ABFP certified; demonstrated management and leadership skills. Minimum experience: residency completion, three years practice or teaching; or internship; five years practice or teaching. Tenure at professor or associate professor, or tenure-track at assistant professor, depending upon experience and qualifications:

- Assistant professor—demonstrated quality research accepted or published in peer-reviewed journals.
- Associate professor—professional distinction in research and writing. Demonstrated effectiveness in teaching, advising.
- Professor—national reputation in research, evidence of leadership in field.

Application deadline is July 31, 1990. Start October 1, 1990, or ASAP after this date. To apply, submit letter, ref-

erences, and CV to: Family Practice Search Committee, University of Minnesota, Box 381 UMHC, 516 Delaware Street SE, Minneapolis, MN 55455; 612/624-2401. The University of Minnesota is an equal opportunity educator and employer and specifically invites and encourages applications from women and minorities. 1-7/90

**Psychiatrist Seeks Part-time Office Space** in Minneapolis or western suburbs. Call: 612/936-9854. 1-7/90

**Wanted: A General Surgeon** willing to relocate and join a practice in a smaller, congenial, western Wisconsin community. Currently there are six family practice physicians and one surgeon serving a progressive hospital with a service area of about 9,000. Call: Professional Careers; 612/796-6220. 2-8/90

**Wanted: General Internist and Orthopedic Surgeon:** Very attractive benefits/salary compensation. Enjoy hunting, fishing, skiing, boating, or golf in an attractive tourist community of South Dakota. Call: Professional Careers; 612/796-6220. 2-8/90

**Urgent Care/Family Physician:** Riverside Medical Center is seeking a family practice-oriented urgent care physician for 30 to 40 hours per week. The candidate should be board certified in family practice or emergency medicine. Work flexible hours in an interesting but low-key environment with an experienced professional staff. Enjoy an outstand-



## WORTHINGTON MEDICAL CENTER PROFESSIONAL ASSOCIATION

The Worthington Medical Center is a 17 member multispecialty group practicing in Worthington, Minnesota. The clinic provides primary and secondary care for a large portion of Southwestern Minnesota and Northwestern Iowa. Practice opportunities exist for board certified/eligible physicians in the Worthington office.

*Family Practice  
Internal Medicine  
Pediatrics  
Psychiatry  
Orthopedic Surgery  
Obstetrics/Gynecology*

Liberal vacation and meeting time, standard benefits package, and above average salary leading to shareholder status in the corporation with minimum buy-in.

For more information contact:  
John Sieve, Administrator  
Worthington Medical Center, P.A.  
508 Tenth Street, P.O. Box 86  
Worthington, MN 56187  
Phone: 507-372-2921



ing salary and benefit package that includes standard benefits plus paid CME time and stipend, society dues, and malpractice insurance. Please contact: James Thompson, M.D., Medical Director, Emergency Department, Riverside Medical Center, 2450 Riverside Avenue South, Minneapolis, MN 55454; 612/371-6464. 2-8/90

**St. Peter, Minnesota:** Available immediately. Position of senior staff physician to work with progressive staff and administration to meet the medical needs of the patients at St. Peter Regional Treatment Center. JCAHO accredited. Delightful setting in the heart of the Minnesota River Valley. University town of 10,000, 10 minutes from Mankato and one hour from the Twin Cities. Salary range \$76,000 to \$109,000 for board eligible, \$82,017 to \$131,000 for board certified, according to experience with excellent fringe benefit package and an opportunity for expanding income through minimal call. An AA/EOE employer. For further information, contact: William Erickson, M.D., Medical Director, St. Peter Regional Treatment Center, 100 Freeman Drive, St. Peter, MN 56082; 507/931-7762. 3-9/90

**Ophthalmologist—Bemidji, Minnesota:** General ophthalmologist needed to join strong, established practice. High pathology, very active surgical practice. Fully staffed. Send responses to: Minnesota Medicine (842), 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414. 3-9/90

**General Surgeon:** 26-physician Twin City suburban primary care group (FP, ob/gyn, pediatrics, surgery, internal medicine) needs an additional surgeon. Excellent location, income, and benefits. Good opportunity for younger surgeon. Hospital 1.3 miles from office. Contact: Dr. Yelle, Dr. Brusven, or Mr. Moore at the Mork Clinic in Anoka; 612/421-3680. 3-9/90

**Pediatrician and Ob/Gyn:** Women and Children's Medical Center, an ob/gyn and pediatric specialty clinic located in St. Cloud, Minnesota, is looking for an obstetrician/gynecologist and a pediatrician. We have a staff of five obstetrician/gynecologists, four pediatricians, one pediatrician/adolescent medicine specialist, one pediatric allergist, and other allied health care providers. Our location includes in-house lab, mammography, and pharmacy. We offer competitive salary, excellent fringe benefits, and production bonuses. Only one hour from the Twin Cities, our community has three colleges and one hospital and offers diverse cultural, educational, and sports opportunities. For more information call: Jon Dennis, M.D., M.P.H., Women and Children's Medical Center, P.A., 1520 Northway Drive, St. Cloud, MN 56303; 612/251-6832. 3-9/90

**Family Physician for Southwest Suburban Minneapolis:** BC/BE to join rapidly growing practice in Chaska, a rapidly expanding suburban Minneapolis community. Competitive salary, full benefits. Hospitals in Shakopee and Waconia. Provider for many health plans. Be prepared to be busy with the full spectrum of family practice. Contact: David Willey, M.D., or Betty Kuelbs, R.N., Valley Family Prac-

tice, 822 Yellow Brick Road, Chaska, MN 55318; 612/448/3303. 6-12/90

**Michigan—Ann Arbor Suburb:** Primary care specialists needed. Group-managed practice. Call one in three. First-year income guarantee, benefits, and paid malpractice. Call: Wanda Parker, Senior Associate, E.G. Todd Associates, 535 Fifth Avenue, Suite 1100, New York, NY 10017. Toll free: 800/221-4762. Collect: 212/599-6200. \*6-12/90

**Family Physician and General Surgeon BC/BE** to join progressive 20-physician multispecialty group practice. Advantages of rural setting with metropolitan practice style, 25 miles from Minneapolis. Group has excellent reputation and large geographical referral area. Our newly expanded facility is adjacent to a 110-bed hospital. Comprehensive benefit package with excellent remuneration. For more information, contact: Bruce Hoggarth, M.D., or Bob Wilcox, Administrator, Lakeview Clinic, Ltd., 424 State Highway 5 West, Waconia, MN 55387; 612/442-4461 or 612/446-1295. 2-8/90

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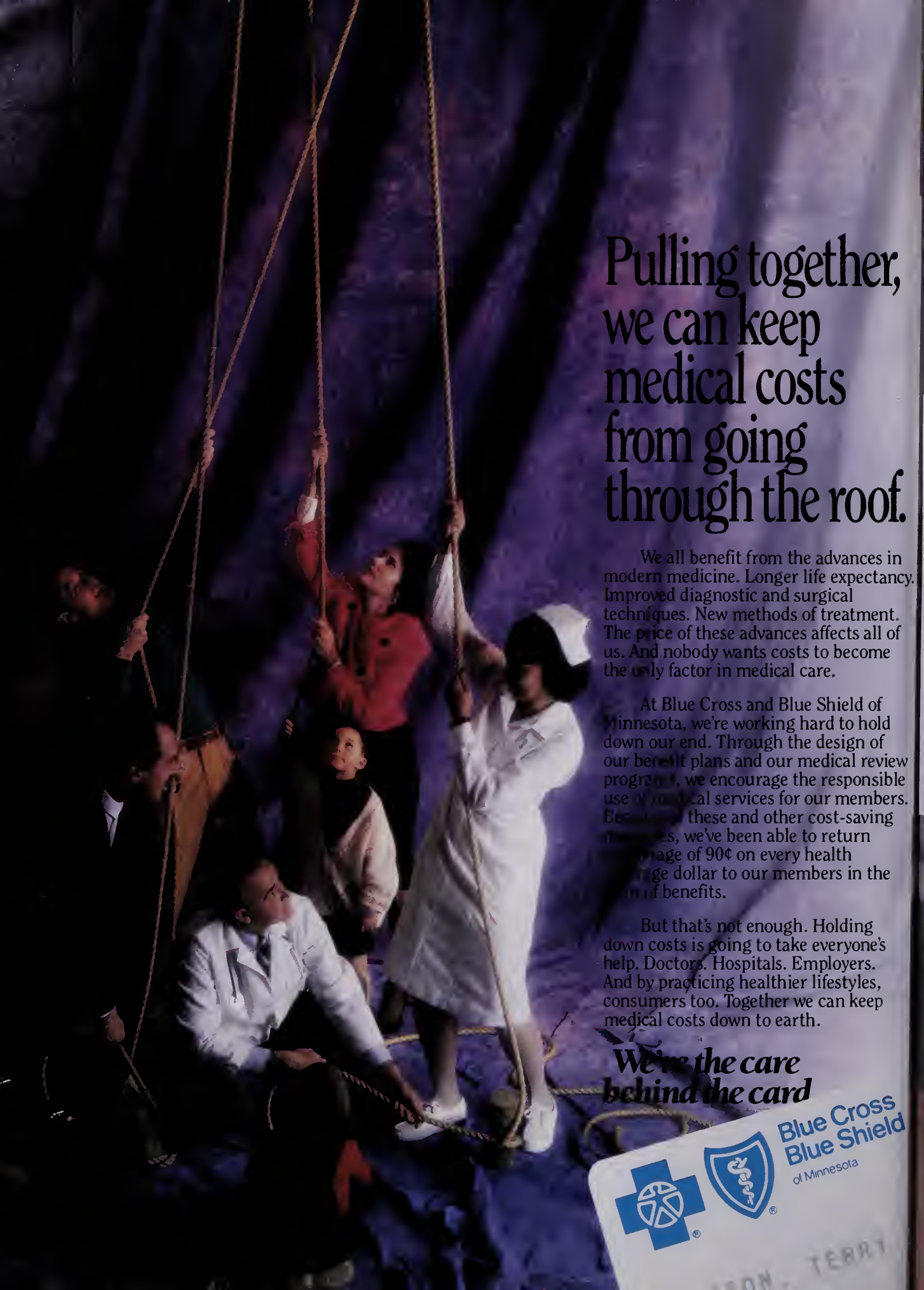
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RURAL MENTAL HEALTH CARE

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## COVER

**Rural Mental Health Care** Mental illness carries a certain stigma that blocks many people from seeking treatment. Couple that with the fact that less than 10 percent of Minnesota's psychiatrists practice in rural areas, and it's easy to see why residents of Greater Minnesota often face difficulties obtaining adequate mental health care. This month's interview (page 11) and feature (page 24) explore rural mental health care and the measures underway to improve it.

Cover photo taken at the Farmington, Minnesota, county fair by Peter Lindman of Minneapolis.

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*From the Editor*

## Revised Policy for Submitting Clinical and Research Articles

**T**he *Minnesota Medicine* Advisory Committee has revised its policy for reviewing clinical and research articles in the journal. Manuscripts will be accepted at any time throughout the year, instead of at two designated times.

As always, we also invite you to submit at any time essays, letters to the editor, and any other reports or commentary involving you and your medical practice.

Thank you for your cooperation, and keep the fine manuscripts coming. Please send manuscripts to: *Minnesota Medicine*, 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414.

Richard L. Reece, M.D.

# Thoughts in the Midday Sun

Richard L. Reece, M.D.

East Falmouth, Mass.

## Dear Readers:

This is my yearly letter from Cape Cod. As you may know, in Massachusetts physicians feel more depressed than those in Minnesota. Or, to give it a reverse spin, Minnesota medicine looks good compared with that in the Bay State.

I'm writing this at high noon on the beach. Whoever wrote "No one goes out in the midday sun but mad dogs and Englishmen," didn't have Cape Cod in mind.

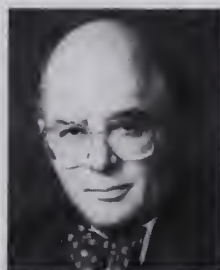
Here everyone—mad dogs, Englishmen, natives, and tourists—boil and toil in the midday sun. After all, as in Minnesota, you can only count on two months of summer. Every minute of midday sun counts. You soak in as many rays as you can before the fog moves over the sea or the sun moves down over the horizon.

Summer reading is a big sport at the Cape. You take your reading material next to the sea. There, you have a good read. It doesn't matter what you read. The important thing is to pretend to be doing something cerebral when you're under the sun. You can even write, as I'm doing now.

My reading falls into two categories: fiction and nonfiction.

For fiction, I read the *Boston Globe*. Take Ellen Goodman, the *Globe's* crack feminist columnist. She said the other day that medical researchers have a radical masculine bias. Why? Because more male white rats are used in experiments than female white rats.

Read the *Globe*, or the *Glob*, as Republicans call it, and you would guess national health insurance is imminent. The unenlightened rest of the nation will soon follow Massa-



"Believe in  
bureaucratic  
efficiency, and  
you'll believe  
anything."

chusetts' example of universal health insurance, the editorial writers say. At the very least, they opine, politicians in D.C. (for Darkness and Confusion) ought to pay for health care in Massachusetts until the remainder of the U.S. sees the light beaming out of Boston.

Here's what the *Globe* has to say: "Public support for universal health insurance is surging across the country. . . . The ordinary American is quite clear what he or she doesn't want under a national insurance system. . . . Middle-class Americans do not want a payment system that, in effect, rations the care they receive. . . . They do not want a system like Great Britain's that will keep them waiting for months or years. . . nor do they want coverage that will be lost if they change or lose their job. . . . They will reject any plan that appears to link health insurance to a welfare plan—such as the recommended expansion of Medicaid to cover the unemployed. . . . Apart from improved access to medical care, Americans want something else from

universal health insurance. They want financial protection—not only against costly medical bills but also against high-priced insurance premiums."

In short, Americans want no rationing, no welfare, no costly bills, no high-cost insurance premiums, and better access—all presumably at no cost to the individual patient or taxpayer because of government efficiencies. Believe in bureaucratic efficiency, and you'll believe anything.

So much for this fiction, which is too good to be true but is so appealing it is likely to transpire. "The public," as a conservative English journalist, Anthony Lejeune, recently noted, "can always be bribed with its own money."

For nonfiction, I've been perusing Eli Ginzberg's book, "The Medical Triangle: Physicians, Politicians, and the Public" (Harvard University Press, 1990). Ginzberg isn't so cocksure Americans will take the giant leap to universal health insurance. He says: 1) Americans have always preferred incremental health care steps—Kerr-Mills, Medicare, DRGs, RBRVS; 2) we like these virtues of our pluralistic system: brisk innovation, high technology, consumer choice, local adaptability, and local control; 3) we're reluctant to step over the line to an unknown government system that may be less desirable than the one we have now.

On the other hand ("give me one-armed economists," said Harry Truman, "so they can't say 'on the other hand'"), Ginzberg doesn't like the drift of managed care either. He says managed care and competitive markets expand, rather than diminish, demand for health care and destabilize the traditional system. How? By

Editor's Notebook to page 10





# VASOTEC®

## (ENALAPRIL MALEATE | MSD)

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

**Contraindications:** VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

**Warnings:** *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

**Hypotension:** Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed, caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

**Neutropenia/Agranulocytosis:** Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

**Precautions:** *General:* Impaired Renal Function: As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

**Evaluation of patients with hypertension or heart failure should always include assessment of renal function.** (See DOSAGE AND ADMINISTRATION.)

**Hypokalemia:** Elevated serum potassium ( $>5.7$  mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

**Surgery/Anesthesia:** In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

### Information for Patients

**Angioedema:** Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

**Hypotension:** Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

**Hyperkalemia:** Patients should be told not to use salt substitutes containing potassium without consulting their physician.

**Neutropenia:** Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

**NOTE:** As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

### Drug Interactions:

**Hypotension:** *Patients on Diuretic Therapy:* Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

**Agents Causing Renin Release:** The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

**Other Cardiovascular Agents:** VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methylglucosides, calcium-channeling agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

**Agents Increasing Serum Potassium:** VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

**Lithium:** Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

**Pregnancy—Category C:** There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 120 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters. There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not

been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypotension, or the underlying prematurity.

**Nursing Mothers:** Milk in lactating rats contains radioactivity following administration of  $^{14}$ C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

**Pediatric Use:** Safety and effectiveness in children have not been established.

**Adverse Reactions:** VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

**HYPERTENSION:** The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

**HEART FAILURE:** The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

**Cardiovascular:** Cardiac arrest; myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension); pulmonary embolism and infarction; pulmonary edema; rhythm disturbances; atrial fibrillation; palpitation.

**Digestive:** Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

**Musculoskeletal:** Muscle cramps

**Nervous/Psychiatric:** Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia

**Urogenital:** Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

**Respiratory:** Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

**Skin:** Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

**Special Senses:** Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

**Angioedema:** Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

**Hypotension:** In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

### Clinical Laboratory Test Findings:

**Serum Electrolytes:** Hyperkalemia (see PRECAUTIONS), hyponatremia

**Creatinine, Blood Urea Nitrogen:** In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

**Hemoglobin and Hematocrit:** Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g/dL and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

**Other (Causal Relationship Unknown):** In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of rhytoid have been reported in patients with G6PD deficiency.

**Liver Function Tests:** Elevations of liver enzymes and/or serum bilirubin have occurred.

**Dosage and Administration:** *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed. If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

**Dosage Adjustment in Hypertensive Patients with Renal Impairment:** The usual dose of enalapril is recommended for patients with a creatinine clearance  $\geq 30$  mL/min (serum creatinine up to approximately 3 mg/dL). For patients with creatinine clearance  $\leq 30$  mL/min (serum creatinine  $\geq 3$  mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

**Heart Failure:** VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been some more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

**Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia:** In patients with heart failure who have hyponatremia (serum sodium  $< 130$  mEq/L) or with serum creatinine  $> 1.6$  mg/dL, therapy should be initiated at 2.5 mg daily under medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19386. J9V561R2(819)

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VASOTEC is generally well tolerated and not characterized by certain undesirable effects associated with selected agents in other antihypertensive classes.

VASOTEC is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor. A diminished antihypertensive effect toward the end of the dosing interval can occur in some patients.

For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

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**ONCE-A-DAY**

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nizatidine

## **Minimal potential for drug interactions**

*Unlike cimetidine and ranitidine,<sup>1</sup>  
Axid does not inhibit the cytochrome  
P-450 metabolizing enzyme system.<sup>2</sup>*

## **Swift and effective H<sub>2</sub>-antagonist therapy**

- Most patients experience  
pain relief with the first dose<sup>3</sup>
- Heals duodenal ulcer  
rapidly and effectively<sup>4,5</sup>
- Dosage for adults with active  
duodenal ulcer is 300 mg once nightly  
(150 mg b.i.d. is also available)

### References

1. *USP DI Update*, September/October 1988, p 120.
2. *Br J Clin Pharmacol* 1985;20: 710-713.
3. Data on file, Lilly Research Laboratories.
4. *Scand J Gastroenterol* 1987;22(suppl 136): 61-70.
5. *Am J Gastroenterol* 1989;84: 769-774.

### **AXID<sup>®</sup>** nizatidine capsules

**Brief Summary.** Consult the package literature for complete information.

**Indications and Usage:** 1. *Active duodenal ulcer*—for up to eight weeks of treatment. Most patients heal within four weeks.

2. *Maintenance therapy*—for healed duodenal ulcer patients at a reduced dosage of 150 mg h.s. The consequences of therapy with Axid for longer than one year are not known.

**Contraindication:** Known hypersensitivity to the drug. Use with caution in patients with hypersensitivity to other H<sub>2</sub>-receptor antagonists.

**Precautions:** *General*—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

**Laboratory Tests**—False-positive tests for urobilinogen with Multistix<sup>®</sup> may occur during therapy.

**Drug Interactions**—No interactions have been observed with theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

**Carcinogenesis, Mutagenesis, Impairment of Fertility**—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

Axid<sup>®</sup> (nizatidine, Lilly)

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

**Pregnancy—Teratogenic Effects—Pregnancy Category C**—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect, but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers**—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

**Pediatric Use**—Safety and effectiveness in children have not been established.

**Use in Elderly Patients**—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

**Adverse Reactions:** Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Axid<sup>®</sup> (nizatidine, Lilly)

**Hepatic**—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

**Cardiovascular**—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

**CNS**—Rare cases of reversible mental confusion have been reported.

**Endocrine**—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

**Hematologic**—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

**Integumentary**—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

**Hypersensitivity**—As with other H<sub>2</sub>-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H<sub>2</sub>-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

**Other**—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

**Overdosage:** Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

PV 2098 AMP

Additional information available to the profession on request.



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Axid<sup>®</sup> (nizatidine, Lilly)

[091289]



### Improved Health Care Access

As I'm sure you are aware, the 1990 Legislature made several changes to improve access to health care in Minnesota.

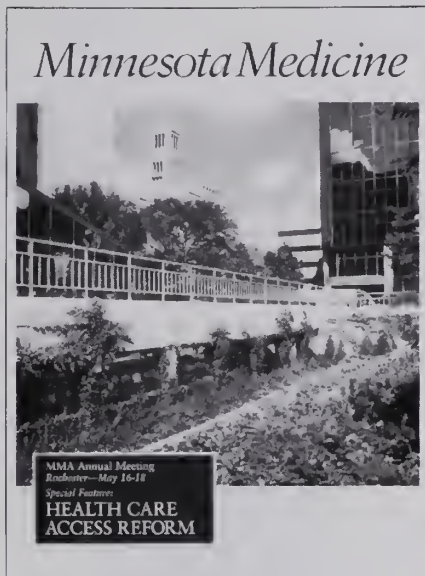
Most notably, the Legislature raised the Medical Assistance (MA) income standard from 100 percent to 133 percent of federal poverty for children ages 1 through 5 years old. This will move many people from the state-funded Children's Health Plan onto the federal- and state-funded MA program, which includes full hospitalization coverage and mental health benefits. This change will also improve health care access for children from underinsured and uninsured low-income families.

In addition, the Legislature increased MA reimbursements for obstetric and pediatric services by 15 percent, which I hope will relieve some of the burden on those provider groups. Also, MA reimbursement for ambulance services will increase by 7.5 percent.

The Legislature directed the Department of Human Services to conduct a study on MA reimbursement for rural health care providers and file a written report in January 1991. Finally, the Legislature appropriated an additional \$70,000 for a grant contract with the Health Insurance Access Coalition in northeastern Minnesota.

I believe these changes will improve the health care coverage available to Minnesotans, especially children. I hope you will share this information with your readers.

*Ann Wynia  
Commissioner  
Department of Human Services  
St. Paul, Minnesota*



### Vaccine Death or Injury

I am writing to advise your readers about the National Childhood Vaccine Injury Act of 1986. This act, (Public Law 99-660, 42 U.S.C. §300aa-10 et. seq.) was written by Rep. Henry Waxman, D-Calif., and Sen. Paula Hawkins, R-Fla., in 1984, enacted in 1986, but remained inactive until 1988 because of a lack of funding. The bill was backed by the American Medical Association and the American Academy of Pediatrics as well as a national parents' group and many drug companies. This law, a landmark in vaccine safety and compensation, has a twofold purpose.

First, the act included safety provisions for administering vaccines and mandates for federal health agencies to promote the improvement of existing vaccines. Second, a no-fault federal compensation system was set up as an alternative to suing vaccine manufacturers or physicians in state or federal court. This portion of the act was intended to compensate individuals who either died or

suffered serious injury from reactions to mandated vaccines.

Physicians should be familiar with a number of important guidelines set forth in the act, including a requirement for doctors who administer vaccinations to report vaccine reactions to federal health authorities. Additionally, the law requires doctors to record vaccine reactions in an individual's permanent medical record. Doctors must maintain a record of the date upon which each vaccination was given, the manufacturer's name, the vaccine lot number, the signature and professional title of the person administering the vaccine, and the address where the vaccine was administered. Under the act, parents are to be provided with information about childhood diseases and vaccines prior to each vaccination.

Another portion of the act provides for compensation for injuries caused by vaccines. According to this section, individuals may petition the U.S. Claims Court, which has jurisdiction over these matters, to obtain recovery of unreimbursable expenses necessary as a result of any vaccine injuries. Claims for vaccine deaths or injuries occurring before October 1, 1988, must be filed with the U.S. Claims Court in Washington, D.C., no later than October 1, 1990. After that date, only those claims for vaccine injuries or deaths occurring after October 1, 1988, will be accepted for compensation. For injuries occurring after October 1, 1988, claims must be filed within 36 months of the death or injury.

Once the petition is filed, a hearing date will likely be set, at which time the individual petitioning for compensation must provide testimony stating the facts of the



case and the circumstances and time frame within which the vaccine reaction occurred. Although medical testimony is often required, if the individual's reaction falls within certain guidelines set forth under the act, a causal connection between the vaccine and the injuries will be presumed. In these hearings, the Department of Health and Human Services is the respondent and may introduce testimony at these hearings challenging the causal connection between the vaccine and the injuries.

The secretary of the Department of Health and Human Services is required under the act to widely publicize the availability of compensation for individuals injured by vaccines. However, in my opinion, the HHS secretary has not been diligent in this effort. Therefore, I am writing to publications such as *Minnesota Medicine* with the hopes of educating

physicians, nurses, and other health care professionals who come in contact with patients who may have suffered vaccine injuries. In this way, such patients may avail themselves of the remedies available under the act.

Thank you for allowing me to submit this letter.

Barbara Ziegler Ashley  
Lambert & Boeder,  
Attorneys at Law  
Wayzata, Minnesota

### Do you have a concern?

*Minnesota Medicine's* Letters to the Editor department provides a forum for discussing any aspect of practicing medicine in Minnesota.

Please keep letters under 500 words and mail them to: Richard L. Reece, M.D., Editor-in-Chief, *Minnesota Medicine*, 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414.

## Editor's Notebook

From page 5

undermining fee-for-service doctors, weakening voluntary hospitals, and eliminating cross-subsidization of the poor. Furthermore, he distrusts a system that results in "... the proliferation of the corporate practice of medicine in which most physicians become employees and in which protocol medicine is the norm."

Whatever happens, the midday sun here on the beach warms my soul and makes me optimistic. I jot down these thoughts on my yellow pad; I think of Winston Churchill, who claimed to be half-American because of his American mother. Churchill said, "You can always trust the Americans. After they have exhausted every reasonable alternative, they will do the right thing."

On that note with that quote, I conclude my parboiled thoughts in the midday sun.

-RLR

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
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# A National Director of Sound Mind

Lee H. Beecher, M.D., interviews Lewis L. Judd, M.D., for *Minnesota Medicine*

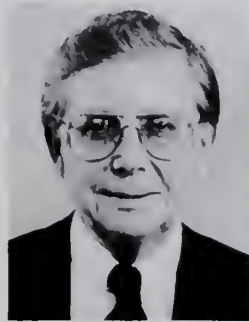
**A**s director of the National Institute of Mental Health (NIMH), Lewis L. Judd, M.D., has his work cut out for him. Few areas of medicine, if any, carry such a stigma as does mental illness. A recent survey by the National Alliance for the Mentally Ill revealed that 71 percent of Americans believe mental illness results from some emotional weakness, 65 percent say it stems from bad parenting, and 35 percent ascribe mental illness to sinful behavior. Almost half of those surveyed believe a mentally ill person can turn the mental illness on or off at will, and 43 percent labeled mental illness as an incurable disease. Only 10 percent correctly believe that mental disorders have biological roots.

In rural areas—where people who suffer from mental illness lack the anonymity found in urban areas—the stigma and misconceptions are magnified. Depression and teen suicide have increased in rural America in recent years—a trend that appears to be tied to rural economic woes. (Although one in four Americans live in a rural area, these rural Americans account for 38 percent of our country's poor.)

NIMH officials had these rural issues in mind when they decided to kick off the Mental Illness in America program, which is designed to heighten people's awareness and understanding of mental health, with a forum in rural Marshall, Minnesota, this spring. Dr. Judd spoke at the forum, but his main aim was to assess rural citizens' mental health needs and the best way to meet those needs.

Dr. Judd, who received his medical degree from UCLA and is a well-known mental illness researcher, is going directly to the rural citizens themselves to collect data about rural mental health issues.

He is interviewed by Lee H. Beecher, M.D., who is in private practice in St. Louis Park, Minnesota, and who also participated in the rural mental health forum in Marshall. He is the immediate past president of the Minnesota Psychiatric Society.



Lewis L. Judd, M.D.

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“We can diagnose mental disorders with the same degree of certainty that any physician can diagnose arthritis or diabetes.”

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Beecher: Dr. Judd, it's a real pleasure for us in Minnesota to have an opportunity to meet you. Minnesota physicians are concerned about how we're going to provide mental health care in the rural areas of our state. In 1987 the Minnesota Medical Association identified access to mental health care as a primary concern in rural areas. We know that one in five Americans at some point in their lives will have a significant mental disorder, and only one-fifth of these people will receive care. We know ignorance, misunderstanding, and prejudice in part are to blame.

Judd: It's very true that the mentally ill or those who are afflicted with mental disorders are misunderstood and misinterpreted. For centuries, they were subject not only to a lot of misinformation but also to stigma, shame, and prejudice. This plays an important part in how we respond to these very serious and very common disorders.

## Mental Health Barriers

Beecher: On April 12, you attended a public hearing in Marshall, Minnesota, on mental illness in rural America. What was the program's intent?

Judd: The National Institute of Mental Health (NIMH), the major federal agency responsible for mental illness research, has a responsibility to provide leadership in issues of mental health. The April 12 forum on rural mental health was part of a much larger program called Mental Illness in America, a series of public hearings conducted by the National Advisory Mental Health Council and the National Mental Health Leadership Forum, made up of all the major national organizations oriented to the mentally ill. The hearing in Marshall, which focused on mental illness in rural America, was the first in the series. Others in the series will cover such issues as child and adolescent mental health and mental disorders in disadvantaged populations.

We came to Minnesota, not as experts from Washington, but in a much more humble posture to listen to and learn from people who live in America's heartland



and who experience what we think is an increased incidence of mental disorders in rural America. Do unique mental illness problems occur in rural America? What barriers preclude people from getting treatment? How do stigma and shame play out in rural settings? We wanted to ask these questions and highlight innovative mental health models that have worked in rural America.

**Beecher:** Showcasing patient-oriented programs and systems of care is what we really need. But do you have a sense of what sorts of programs you will be likely to research?

**Judd:** Let me offer a broader perspective on this. The issue of mental illness in rural areas became an NIMH priority this year. The institute began a number of years ago to try to get a better understanding of mental disorders in rural areas. Over the years we funded a number of innovative approaches that have been applied in rural areas with some success.

Barriers to treatment have emerged as the primary issue. The real barrier both in rural and urban America is the stigma attached to being mentally ill or having a mental disorder. So often people feel ashamed and are unwilling to get help. Some of the very characteristics that have made the people of America strong—such as independence and self-reliance—may keep many people from seeking help for a mental disorder. When you live in a small town, you don't have the anonymity and privacy you might have in a large city. People in rural areas are concerned about going into a mental health center or going to see a psychologist, psychiatrist, or social worker.

The stigma attached to mental illness is reflected in the prejudice exhibited toward psychiatric care. NIMH studies indicate that reimbursement rates and policies for mental disorders are distinctly different from those for the so-called physical illnesses. For example, currently only 6 percent of employees with health insurance policies in this nation have outpatient mental health coverage that equals their outpatient coverage of a physical disorder. That's outrageous! Patients can't find somebody qualified to take care of them because the providers aren't fairly reimbursed for their treatment.

Lack of accessibility is another problem. People who live in a greatly dispersed geographic area must travel long distances to receive care. We have found that outreach kinds of approaches to rural mental health care are very successful. It helps to get mental health clinicians away from their offices and centers and out to the gathering places in the rural areas—to a local cafe or store, for example. It helps to have psychiatrists available to do on-the-spot consultations, to do very quick assessments, and to facilitate referrals. Regular columns on mental health issues in the local newspapers, perhaps by the local psychiatrist or psychologist, can help people

to recognize problems and encourage them to come in early for treatment. We've even used the rural mail carriers as contact points to identify problems, especially among the elderly, who are often more isolated. So, there are models that work.

### *Who Picks Up the Tab?*

**Beecher:** We have this terrible paradox: At long last the discrimination and stigma placed on people seeking help for mental disorders and substance abuse is diminishing. But, meanwhile, both the public and private sectors view mental health and substance abuse problems as economically out of control. As you well know, somewhere around \$250 billion a year is being spent on chemical and mental illness problems. That's 30 percent of our nation's health care expenditures. These treatments are often viewed by payers as being ill-defined, and the costs as too difficult to control. The cost is an even bigger issue in rural America, where there is a higher percentage of medical assistance and Medicare patients. How are we going to get mental health coverage for the rural citizens who need it?

**Judd:** Third-party payers complain that there is a lack of a data base with clear definitions of mental disorders.

They want to see clearer links between diagnoses and treatments and between treatments and predictable, proven outcomes. In some ways, our own history is working against us in this regard; it wasn't that long ago when diagnosis of a mental disorder was not particularly reliable or valid. The treatments we had to offer were often nonspecific. They were helpful to a degree, but they did not really deliver the kind of clear-cut outcome seen with some other medical procedures. But we're now in a new era. We have a highly systematic, reliable, and valid diagnostic process. We can diagnose mental disorders with the same degree of certainty that any physician can diagnose arthritis or diabetes. We have the data base the third-party payers are looking for. Second, we have extremely effective treatments with proven outcomes. A wide variety of medications have proven to be very effective in the treatment of many mental disorders. Specific psychotherapies, often in combination with medications, also have proven successful in the treatment of specific disorders. We are experiencing success rates of up to 80 and 90 percent with many disorders.

I believe we can demonstrate to the third-party payers that we can make an accurate diagnosis and that we can treat the patient in a timely fashion. We must make the point that failure to treat patients results in far worse sequelae by incurring further medical costs and causing pain or possibly death for that individual. The data base the NIMH developed over the years is extremely useful. We can demonstrate to a company or an insurance group that failure to recognize the presence of major depression, a panic disorder, or other similar

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“The stigma attached  
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diseases in an employee will ultimately be bad for both the individual and the company. Absenteeism, alcoholism, marital problems, and, certainly, reduced productivity may develop when a mental illness goes unrecognized. The NIMH is engaged in demonstrating that early recognition, diagnosis, and treatment are enormously cost effective—that they reduce medical costs misspent on ineffective or wasteful procedures.

### *Educating Docs About Mental Health*

**Beecher:** Here in Minnesota's competitive medical environment, we are going through a shakedown in defining "mental health products," which dictate referral patterns. This raises the question about how well physicians are educated about the causes and treatment of mental illness. What is the NIMH doing in that area?

**Judd:** I was an educator and a department chair in a medical school and spent the earlier part of my life in academic and scientific psychiatry, teaching rather than practicing practical psychiatric care. In my view, we have not done a good job of educating the general physician about modern clinical psychiatry and the power it can bring to one as an artful healer. I think the stigma surrounding mental illnesses not only pervades the insurance industry and the state and federal governments, but also pervades the medical and ancillary health professions as well.

There is suspicion about what psychiatric practice is all about and how relevant it is to one's life as a physician. That increasingly is demonstrated by the failure of primary care physicians to recognize and treat mental disorders present in the patients they see in their practices. This is one of the major failures of American medicine. It creates a group of patients who are high users of medical services, rotating in and out of specialists' offices. They don't know what their problem is—they just know it's not being recognized or taken care of.

A recent study conducted by the Rand Corporation and partially funded by the NIMH showed the disability caused by unrecognized and untreated major depression exceeded that of virtually every other chronic medical illness. The only one that it was comparable to was acute coronary artery disease. The failure to recognize mental illness has created an enormous disability in this country.

The NIMH is addressing the problem by sponsoring continuing medical education courses on recognition, diagnosis, and treatment of depressive disorder. The courses, oriented to the primary care physician, have been offered throughout the United States three times a week for the last three years. We are also starting a new program this year to try to enhance U.S. medical schools' teaching of mental disorder diagnosis and treatment. So, we're identifying the primary care physician as one of the

major players in mental health care. We think that almost 85 percent of people with mental disorders are seen first by the primary care physician.

### *Psychiatrists' Role*

**Beecher:** There are about 500 psychiatrists in Minnesota, with an additional 100 or so in North and South Dakota. Some, but not many, consult in rural areas. Psychiatrists need to get involved in the rural areas. What kind of roles and recruitment do we need to be thinking about?

**Judd:** Psychiatrists, as the leading experts in mental disorders, need to practice the most modern clinical psychiatry and to serve as community experts. They need to educate other physicians and health care professionals, as well as the community. This is especially important in rural areas, where there are very few psychiatrists. How to lure medical specialists to rural America is a very difficult problem that we have not solved.

**Beecher:** Do you believe it is important, given the very nature of mental health problems, that the psychiatrist live in the community he or she serves in order to understand the nature and customs of the people there?

**Judd:** Without question. Yet, most psychiatrists live in urban areas. This is true of all medical specialists, but it is especially true of psychiatrists. I honestly don't know what we can do to encourage them to go into rural areas. A variety of incentives have been tried. For instance, the federal government has paid for the medical school training of individuals who agree to spend a given amount of time in a particular rural area. Some physicians go and serve their two or four years and then leave. Others like what they find in rural areas, and they stay.

There would seem to be a number of advantages to living in rural America, but the lure has not been sufficient to bring large numbers of medical specialists into those areas.

**Beecher:** You mentioned that federal changes are affecting mental health care. As you know, last year Congress enfranchised psychologists and clinical social workers for direct Medicare payment, and the new resource-based relative value scale is coming. One might think about incentives and ways we can recognize the kinds of quality care we want to pay for. If you were asked by the Health Care Financing Administration what sorts of things we should be looking for in coding changes or in mental illness reimbursement issues, what would you say?

**Judd:** The initial RBRVS-determined values and weightings were inappropriate given psychiatry's labor-intensive reliance on "psychotherapy." We urged a gathering

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“We have not done a good job of educating the general physician about modern clinical psychiatry and the power it can bring to one as an artful healer.”



of a broader data base to ensure that the weightings given to each code would be adequate and fair and would encourage quality treatment. Some new "codes" may be needed, too.

**Beecher:** Where do we stand with *basic* research? For instance, I know the NIMH has recently increased its funding of neurobiology.

**Judd:** Neuroscience is one of the fastest growing and probably one of the most promising branches of all the biomedical sciences. In fact, President Bush has signed a Congressional resolution declaring the next 10 years the "Decade of the Brain." The decade will be devoted to major national efforts to demystify the brain, this extraordinarily complex and unique human organ system. It is highly germane to mental illnesses, because mental disorders largely emanate out of dysfunctional brain mechanisms. So, the NIMH has put a great deal of emphasis on understanding how the brain works and how it does not work "normally." We are taking the lead in making sure that the Decade of the Brain happens. Data are emerging daily that will improve the way we practice psychiatry. We think this next decade will be a time of phenomenal progress with regard to mental illness.

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# Autonomy Lost

*Thomas R. Rollie, M.D.*

As a physician, I expect to have some control over my patients' treatment. I believe I should have a voice in determining what kind of care they receive and where they receive it. The following is my account of the loss of that autonomy to a third-party payer. Never have I felt so impotent in providing care to a patient.

C.K. is a 29-year-old woman whom I have known since 1983, when she first presented to me with significant dehydration after nausea and vomiting. She had a history of depression and had attempted suicide by overdosing at least twice. I hospitalized her, and, after my work-up and treatment, I concluded that she suffered from anorexia nervosa and a major depressive disorder.

I referred her for evaluation by a Duluth psychiatrist, who agreed with my findings, and C.K. was subsequently treated for her eating disorder at Miller Dwan Medical Center in Duluth. We had significant success with this treatment. C.K. seemed to go into remission for the anorexia nervosa and did quite well, judging from her weight. When I first saw her she weighed 105 pounds, and in October 1987 she was up to 137 pounds and looked and felt well.

In the summer of 1989, C.K. suffered a subarachnoid hemorrhage from which she recovered, but that fall she again started to have signs and symptoms of anorexia nervosa. At Thanksgiving she was being treated for depression, and she overdosed on Amitriptyline. She was seen by one of my partners and referred to a Duluth psychiatric institution. I talked to the psychiatrist after she was discharged. He said he would have liked to have kept C.K. longer, but her insurance company had a contract requiring it to obtain all psychiatric care for its members at another hospital. He told me the insurance company gave him "so much hassle" that he had to let

C.K. go prematurely.

I saw C.K. here in Ely one month later. She had attempted to commit suicide again with an overdose of Verapamil, and I hospitalized her here for two days. She had some heart dysrhythmia but recovered without any adverse effects. I subsequently transferred her to the psychiatric facility that had the contract with her insurance company. She stayed there for five days and was

subsequently discharged in early January on an antidepressant. She was to see a psychiatrist at the end of March for follow-up. I saw C.K. again on January 15, at which time she told me that the last psychiatric admission was a "joke," and she wasn't sure that she wouldn't try to commit suicide again. When I asked her how she would do it, she said, "Well, hanging is the only way left for me." At that visit she also told me she had been unable to eat even a piece of celery the day before. She agreed not to do anything further until I had discussed her treatment with the medical director of the insurance company and the psychiatrist. She said she would be willing to go to an inpatient facility for an eating disorder, and I felt—with her previous good response to treatment for the eating disorder and the de-

pression—that she would be a good candidate.

I talked to the medical director of the insurance company, and he advised me to talk to the psychiatrist who took care of C.K. the last time, which I did. The psychiatrist did not have access to an eating disorder program and told me that I could refer C.K. to the University of Minnesota in the Twin Cities or to Duluth's St. Luke's Hospital, which has an outpatient eating disorder program. I saw my patient the next day. At that time, she was so depressed that I didn't think I could allow her to leave the clinic alone, and I made arrangements for her to be transferred directly from my clinic to



ILLUSTRATION BY STEVE JOHNSON



Miller Dwan—where she was treated initially—for further treatment for her eating disorder and her depression. I believed that I had gotten the OK from both the medical director and the insurance plan, as well as the psychiatrist who had last seen her. About 30 minutes later, the administrator of the mental health portion of the insurance program arrived at my office to inform me that I couldn't do this. He told me that C.K. should have been hospitalized at the last psychiatric institution—even though it did not have a program for eating disorders—and would have to be seen by the last psychiatrist, even though C.K. did not have good rapport with that psychiatrist, and the psychiatrist himself didn't feel he could address her eating disorder adequately.

Without my knowledge, the administrator phoned Miller Dwan Medical Center to tell the staff that my patient, who was now en route, could not be admitted and would have to be seen at St. Luke's.

I subsequently found out from the person who drove C.K. to Duluth that when they arrived at Miller Dwan, they were sent to St. Luke's to see an intake worker. The intake worker, however, had another appointment and told my patient to come back the next morning. As a result, my patient, whom I felt was severely depressed and perhaps suicidal, was forced to stay the night with her sister in Duluth.

C.K. called me the next day and told me that she was given two choices: she could participate in an outpatient

eating disorder program through St. Luke's, or she could be involved in an inpatient eating disorder program in the Twin Cities. Because she was very depressed, had twice attempted suicide, and had threatened to try it again, I recommended the inpatient program.

Thirty minutes later, the director of the insurance program called me again. He had talked to the intake worker at St. Luke's and to my patient, and they had decided to go ahead with the outpatient treatment program, despite my concerns.

I am happy to say that at this time C.K. is participating in the program and has not made any further suicide attempts, but I remain frustrated by my loss of control of her medical treatment. Most of the decisions concerning C.K.'s care were based on dollars, not on what was best for her. The director of the insurance program even told me at one point that he didn't want a big bill for treatment he considered inappropriate. I have been accustomed to determining the best treatment for my patients. In this case, I had no control. My voice went unheard.

MM

*Thomas Rollie is a family physician with the Ely Medical Center.*

*After Dr. Rollie submitted this essay to Minnesota Medicine this spring, his patient was hospitalized and put on a ventilator in May after overdosing on aspirin. She's now out of the hospital.*



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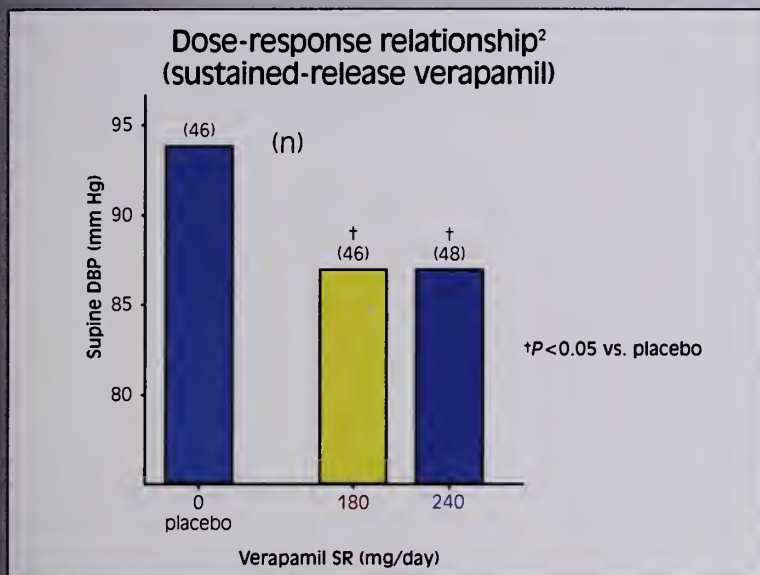


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**Warnings:** Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

**Precautions:** Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration.

Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

**Adverse Reactions:** Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°, 2°, 3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, increased urination, spotty menstruation, impotence.

### References:

1. 1988 Joint National Committee: The 1988 report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. *Arch Intern Med* 1988;148:1023-1038.
2. Data on file, G.D. Searle & Co.

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# Braxton Hicks vs. Preterm Labor

*Thomas W. Day, M.D.*

In Minnesota, as in other parts of the country, more babies are admitted to the neonatal intensive care unit (NICU) for prematurity than for any other reason. Indeed, 75 percent of deaths in babies who do not have major anatomic malformations stem from premature births.<sup>1</sup> In addition to requiring extremely costly NICU care, the premature baby is more susceptible to disease and, therefore, likely to need much more medical intervention during infancy and childhood. The effects on parents and other relatives measured in family dysfunction and stress-related disease are more difficult to calculate. Clearly, for humanitarian and economic reasons, we must focus on reducing the rate of preterm births in addition to improving the medical prognoses of these babies.

The Minnesota Medical Association, in cooperation with Minnesota's Department of Human Services and Department of Health, is working to improve prenatal care in Minnesota. A significant part of this effort involves a series of presentations around the state directed toward health care professionals. These conferences begin with a discussion of risk factors associated with poor maternal and fetal outcomes. They conclude with a panel presentation by physicians, nurses, and social workers focused on practical aspects of implementing a preterm birth prevention program.

At a recent Prenatal Care Initiative presentation in Virginia, Minnesota, a number of questions were asked about uterine contractions. How many in an hour are worrisome? How can we teach women to recognize "true" contractions? What is the appropriate use of home monitoring devices? What should we look for on the monitor once the patient has been admitted?

Measurement and interpretation of uterine contractions continue to cause physicians discomfort and disagreement, although they have been the subject of medical debate for more than 100 years. Before the recent increased interest in preterm birth, it was common for doctors to differentiate "false" labor from "true" labor. More than an academic point, this knowledge was also used to help determine when patients should come to the hospital. Pregnant women were often asked to wait at home until their labor pains were three minutes apart. They were asked to report whether moderate activity, such as moving around the house, increased or decreased

the intensity of contractions. If the number or force of contractions decreased, the woman might be advised to remain at home. The gestational age wasn't always given as much attention as the determination of true from false labor.

Differentiation of true and false labor has often included mention of Braxton Hicks contractions. Though used as a synonym for false labor in the recent past, this is probably not justified based on a review of the original work, and it causes confusion among patients and house staff. Many women, as they left the hospital still pregnant, had to wonder just how they were supposed to know a Braxton Hicks contraction from a "real" one.

In 1871, John Braxton Hicks presented to the Obstetrical Society of London his interpretation of the physiological role of uterine contractions in very early pregnancy.<sup>3</sup> He postulated that these usually painless contractions assisted the flow of blood through the uterine sinuses and that they were so common in the first trimester that they were useful in diagnosing early pregnancy. He also remarked that the contractions "are of the same character and identical with 'labour pain' if the uterus is excited into a more vigorous state."

In 1950, Alvarez and Caldeyro reported on the use of an intrauterine pressure gauge.<sup>4</sup> They discovered frequent, rhythmic contractions of such low amplitude that they were not discernible by the pregnant woman, not perceived on abdominal palpation by the physician, nor recorded by the external monitors then available. In contrast, they described Braxton Hicks as nonrhythmic contractions of higher intensity that can be perceived by abdominal palpation, the external monitor, and the pregnant woman herself. They felt that Braxton Hicks contractions appeared "sporadically, usually without rhythm" and became more frequent after the eighth month. Alvarez and Caldeyro further determined that the infrequent and nonrhythmic Braxton Hicks contractions became gradually stronger, more frequent, and more rhythmic in the two weeks prior to labor.

With modern, highly sensitive external tocotransducers, many low-amplitude contractions that were not recorded by previous external monitors can now be identified. While it seems technology has advanced to the point of identifying all muscular activity of the pregnant

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"Black-and-white  
labels of false and  
true labor serve  
to enlighten  
no one."



uterus, the usefulness of this data in the care of the individual patient has lagged. We should be able to agree, however, that since uterine contractions gradually change in intensity, frequency, and rhythmicity over many days prior to labor, black-and-white labels of false and true labor serve to enlighten no one. By acknowledging to ourselves and instructing the patient that frequency and strength of contraction must be correlated with cervical change in order to diagnose labor, we will convince patients to come in for examination whenever they feel they may be in labor. If we continue to put the onus on the patient to determine false from true labor, we will continue to suffer the 6 percent to 8 percent preterm birth rate that has remained unchanged for 20 years.

Let us remember John Braxton Hicks as an innovative and insightful obstetrician of the last century but discontinue using his name to describe contractions that are not expected to result in imminent delivery. Such a distinction was not drawn by Braxton Hicks and only confounds our efforts to educate ourselves and our patients about methods to reduce preterm birth.

Let us also agree to avoid mentioning "false" labor. That term causes confusion and guilt, both of which create reluctance to notify care givers the next time symptoms are perceived. We must agree to promote education, diagnosis, and treatment of preterm labor in order to reduce the physiological and psychological trauma of preterm birth.

MM

*Thomas Day is a family physician with the Duluth Family Practice Center, Duluth, Minnesota, and a faculty member of the Duluth Family Practice Residency Program. He was recently named Teacher of the Year by the Minnesota Academy of Family Physicians.*

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By Harvey Meyer

# Rural America

## *Surmounting the Obstacles to Mental Health Care*

**D**o you harbor subconscious negative feelings about your patients who have mental disorders? If so, you're not alone. You're part of a cultural phenomenon that makes it difficult for patients to seek treatment for mental problems. In fact, if you're a rural physician, regardless of your feelings about mental illness, your patients face such overwhelming barriers to mental health care, chances are they may not receive the care they need.

Consider the following facts:

- Less than 10 percent of all psychiatrists in Minnesota are located outside the primary population centers. Furthermore, a 1989 survey conducted by the Minnesota Hospital Association (MHA) and the Minnesota Medical Association (MMA) found that rural Minnesota needs an additional 200 physicians, many of whom would be expected to perform some mental health care diagnosis and treatment.

- Rural physicians polled by the Minnesota Medical Association in 1987 said greater access to mental health services was Greater Minnesotans' No. 1 health care need.

- Many outstate Minnesotans eschew help for mental health problems because it conflicts with traditional rural values such as a strong sense of independence and privacy. Many are further deterred from seeking assistance because of the

stigma society attaches to mental illness.

- The economic decline in rural America during the 1980s impoverished hundreds of Minnesota farmers and small-town businesses. Unable to afford insurance, or enough insurance, many rural residents in need of mental health treatment don't receive care.

Recognizing the gravity of mental health care problems in rural America, the National Advisory Mental Health Council and the National Mental Health Leadership Forum sponsored an April public hearing at Southwest State University in Marshall, Minnesota, to focus attention on access issues. Marshall was a particularly apt venue, since it is situated in America's most rural congressional district.

Several hundred people from around the country attended the special hearing, including some of the top mental health care policy-makers in the United States.



*Photographs by Peter Lindman*



Public testimony covered a wide range of subjects—everything from stigma, depression, and teen-age suicide to the paucity of mental health care professionals in rural areas and the geographic barriers to mental health care access.

Lewis Judd, M.D., director of the National Institute of Mental Health (NIMH) and keynote speaker at the Marshall hearing (see “Face to Face” interview, page 11), said a report of the testimony would be compiled and used in helping to shape research programs of the NIMH, which is the primary source of federal support for mental disorders. The information also will be made available to federal and state lawmakers and others interested in improving mental health care in rural America.

### *Shortage of Mental Health Care Professionals*

You can't get professional mental health treatment if there's no one near to offer that care. Such is the dilemma for many rural Minnesotans, some of whom live 50 miles or more away from a physician's or psychiatrist's office.

There is only one practicing private psychiatrist in the state's 20 southwestern counties, with a combined population of about 20,000, said Robert Riedel, a Marshall psychologist. If patients living in Marshall need to see a psychiatrist to alter their medication, they must drive 60 miles to Worthington or 70 miles to Willmar, and they may have to wait several months before the psychiatrist can find time to see them, Riedel said.

“Psychiatry is part of the solution to solving mental health care problems in rural America,” said Lee Beecher, M.D., a suburban Minneapolis psychiatrist and immediate past president of the Minnesota Psychiatric Society. “But it's very difficult to recruit psychiatrists for mental health centers in rural Minnesota.”

That difficulty is due, in part, to the fact that rural areas don't have the same appeal as large cities. No Minneapolis Institute of Arts, no Guthrie Theatre, no professional sports. Additionally, rural practitioners work long hours and with little collegial support. And beyond that, Medicare reimburses urban doctors at higher rates than rural doctors, whose caseloads typically include a higher percentage of these patients.

“Couple a high Medicare and Medicaid clientele with today's managed care plans, where fees are reduced, and [the possibility] of attracting new physicians to a rural area is not very bright,” said Ray Christensen, M.D., a Moose Lake family physician.

It's not that rural Minnesotans cannot obtain mental health care. Indeed, each of the state's 87 counties is required by the 1987 Minnesota Comprehensive Adult and Children's Mental Health Act to provide certain mental health services; all counties have access to a community mental health center staffed by mental health professionals; private mental health centers and a variety of social service agencies around the state offer some mental health care; family physicians also offer some mental health diagnosis and treatment; and some rural

areas have established formal and informal networks through which people in the community provide peer counseling or refer needy people to appropriate providers.

But the problem is many rural Minnesotans with mental health problems have special needs. “Some work can only be done by specialists,” said Barbara Kaufman, assistant commissioner for mental health at the Minnesota Department of Human Services.

### *Lack of Access Due to Geography*

Such a need may have been tragically illustrated by the death of Fran Madsen's 14-year-old son—a tragedy that also reveals the difficulties rural residents can face in finding adequate mental health care near their homes.

Madsen's son was experiencing some mental health problems and was receiving in-house treatment at a facility 90 miles from Marshall, where Madsen lives and works as a licensed practical nurse. Every week she and her other children would drive to the Sioux Falls facility, sometimes through blizzard-like conditions, to participate in family therapy.

Her son was released from the facility in April 1988 and was receiving “excellent” follow-up guidance from an outreach mental health counselor, Madsen testified at the Marshall hearing. But the counseling apparently wasn't enough; her son committed suicide in June 1988.

“We had an excellent person working as an outreach mental health counselor, but Marshall and other rural areas need more licensed personnel and psychiatrists,” said Madsen, who believes her son might be alive today if he had had access to a psychiatrist or licensed psychologist closer to home.

Although it wasn't enough to make a difference in this case, Madsen had one advantage not all rural Minnesotans share: she had a car. In many cases, says Kaufman, the families don't have a car, and there is no public transportation in rural areas.

### *Stigma's Role in Denying Access*

Even the people who can get the mental health care they need may be reluctant to seek help. The stigma attached to mental illness prevents many people from seeking desperately needed treatment, particularly in rural areas, where mental health problems are more likely to be considered weaknesses, Judd told the Marshall audience. That shame is somewhat diluted in the anonymity of larger cities.

In both urban and rural areas, people continue to stigmatize mental illness and do not acknowledge its biological causes. A recent survey by the National Alliance for the Mentally Ill found that 71 percent of respondents believe mental illness is due to emotional weakness; 65 percent believe mental illness is due to bad parenting; and 43 percent believe the mentally ill bring on their own illness. Other studies have revealed that many health care professionals also harbor hidden negative feelings about their patients with mental disorders.

The stigma of being afflicted by mental health problems is not only an individual problem but a societal one,

Judd said. As proof, he referred to an American Psychiatric Association study conducted a few years ago that showed only 6 percent of employees with health insurance have comparable outpatient coverage for mental and physical disorders. Typically, mental health coverage falls far short of the coverage for physical ailments. "That," Judd said, "shows the subtle face of stigma."

"Stigma may be the cruelest barrier to serving the mentally ill," agrees Kaufman. "Even if you need help, what is the cost you'll have to pay in ostracism from your family and friends if you admit you have a mental illness and need help?"

### *Economy's Role in Denying Access*

A faltering rural economy throughout the 1980s has both contributed to the need for mental health care and exacerbated the access problems in outstate Minnesota. With the agricultural crisis forcing farmers and small-town companies out of business, or forcing them to seek additional income, many rural Minnesotans became distraught. Compounding the situation, the economic

downturn dwindled employment opportunities in these communities, heightening stress levels among dispossessed farmers, people in business, and their families.

In fact, a 1987 study by the National Mental Health Association linked the economic setback to a significant rise in mental illness in rural America. Specifically, the study said, the incidences of depression, anxiety disorders, child and spouse abuse, and alcohol use reported to rural community health centers in the last decade have increased at a higher rate than in urban areas.

Many rural residents, including those in the timber and mining industries, needed mental health counseling or treatment. But, according to the study, many rural families responded to their financial troubles by cancelling their health insurance policies and discontinuing regular medical check-ups. As a result, struggling rural citizens have been denied access to mental health care because they can't afford it and they have no insurance.

"The uninsured and underinsured, with respect to mental health care, are a critical problem in the rural

**"Stigma  
may be the cruelest  
barrier to serving the  
mentally ill."**

—Barbara Kaufman





area," said Vincent Mehmel, executive director of the West Central Community Services Center in Willmar. "By failing to improve the funding systems and address the imbalances, we are marginalizing the people in rural areas."

In fact, mental health treatment is often based on what insurance will cover, according to Beecher.

### *Involving Primary Care Physicians*

There are myriad ways to improve rural residents' access to mental health treatment. Suggestions include pumping up the rural economy, involving community residents in peer-counseling networks, and increasing the number of mental health professionals in rural areas.

Incorporating mental health treatment into the regular practices of rural family physicians is another recommendation that has been generating support. The theory goes something like this: There is a shortage of psychiatrists and psychologists in rural areas. Many nonmetro residents visit a general practitioner whom they trust. Many times people who have physical ailments are also troubled by mental health problems. Why not instruct primary care doctors, who already prescribe the majority of rural patients' medications, to become more involved in mental health diagnosis and treatment?

"General practitioners can provide support to patients, and they can become fairly expert in medication management, and that includes altering or modifying



## Mental Health Care via the Family Physician

Milton Seifert, M.D., believes he has created a sure-fire way to improve rural residents' access to mental health care.

Seifert, who operates a family practice in Excelsior, Minnesota, says 18 years of experience proves

that his Eagle Medical model increases the number of patients whose mental health problems are diagnosed. Consequently, more people who need treatment for mental disorders receive it.

And while his family practice model is not cur-

medication," said Barb Kaufman of the Minnesota Department of Human Services. "There is a fear that some psychiatrists will feel GPs are elbowing into their territory, but what do you do when you live in East Podunk and you can't get a psychiatrist to talk with you on the phone?"

"The best thing to do to improve access is to upgrade primary care doctors' knowledge about mental disorders, since everybody goes to them in the rural areas," said Delores Parron, associate director for special populations at the NIMH in Rockville, Maryland. "If you look at the statistics, only one in five persons who need mental health care are seen by mental health professionals. That means four in five are going to their primary

care doctor, and nothing may be done to address their problems."

Indeed, many primary care physicians already combine physical with emotional check-ups. But currently, there are few programs offering rural doctors concerted, ongoing mental health training.

That's one reason the Minnesota Medical Association Task Force on Rural Health in 1987 recommended that the MMA, in cooperation with primary care medical specialty societies, develop crisis intervention continuing medical education courses in mental health for primary care physicians. The task force also called on the MMA to work with state government to establish a list of psychiatrists willing to offer phone consultation for

rently operating in Greater Minnesota (it is being used by another family practice in St. Paul), Seifert believes the time is ripe for exporting it to rural areas.

The Eagle model is family practice oriented, and rural Minnesotans are used to receiving health care in that setting. "Family practice is a terrific way for rural residents to get access to mental health care," said Seifert, recently selected Family Physician of the Year by the Minnesota Academy of Family Physicians. "I'm real optimistic this model will work in rural settings."

Here's a thumbnail sketch of how Seifert's Eagle model works: Patients enter Seifert's practice and he notes their complaint of an ailment that may be related to stress. Seifert then asks them a series of easy-to-understand questions designed to determine their stress levels, such as: "On a scale of 1 to 10, how sensitive would you say you are; how much of a perfectionist are you; and how compulsive are you?" This patient involvement is crucial to making the model work, he said.

Once he's pinpointed what may be the origin of the stress, he asks patients to rank on a scale of 1 to 10 how they feel about the cause in terms of anger, guilt, and fear. All negative emotions, he said, fall under those categories. If the patient gives himself a 7 for anger, an 8 for guilt, and a 9 for fear, for example, his so-called "emotion quotient" is 24 over 30, Seifert said.

He asks patients what they'd like to do to lower that emotion quotient and offers the services of a health educator, who teaches them how to reduce stress levels by using "life management skills" based on the Alcoholics Anonymous 12-step program. Seifert emphasizes the health educator *educates* and doesn't *counsel*, something he leaves for mental health professionals.

After four or five sessions with a health educator,

a multidisciplinary committee of mental health professionals may review the patient's history and make recommendations on the next step. Frequently, it may be referring the patient to one of the committee members, perhaps a psychologist or psychiatrist.

In any case, Seifert and the patient must then agree on the next move. Aware of the stigma attached to mental health problems, Seifert says, "It's kind of a big jump from the family practice office to the psychiatrist's office. But with my model, that conclusion can be reached a little more slowly, and the patient may see the need for it. The referral is a little easier then."

Even when a patient is referred to a mental health professional, Seifert stays in contact with the patient and continues to treat his patient's physical ailments.

Seifert says the Eagle model is particularly suited for rural areas, which are suffering from a shortage of mental health professionals. Even when referrals to mental health

professionals are made in rural areas, it may be several weeks before a psychiatrist or psychologist can see patients; and, of course, in some cases, patients need immediate help. Seifert says his model quickly helps reduce stress levels, even in psychotic patients, and that makes them better patients for mental health professionals.

A 1985 test involving family practices in Willmar, St. Peter, and Shakopee showed that the Eagle model resulted in more diagnoses of patients with mental health problems, Seifert said. "The significance is that if a diagnosis is made, there's a better chance for treatment.

"Our success rate with the model is very good; we've never had a failure," said Seifert, who is hoping to export the model to both urban and rural family practices. "The only failure we've had is when people don't use the model. If they use it, there's always some improvement."

MM

"If a diagnosis is made, there's a better chance for treatment."

—Milton Seifert, M.D.



mental health patients. The MMA is considering both recommendations.

The NIMH has its own program to help teach rural primary care physicians to recognize and treat depression. Its Depression Awareness Recognition Treatment program offers regular training sessions throughout the country, including sessions in Minnesota. Judd said another NIMH program will soon offer mental health professionals and physicians training to recognize and treat panic disorders.

Some community health representatives say many primary care doctors in rural areas already are doing a good job of diagnosing mental health problems in their patients and either treating them with medications or referring them to professionals. But others argue that, with the current shortage of family physicians in rural areas, asking them to take on mental health responsibilities would be too burdensome and financially questionable, since doctors tend to make more money treating physical ailments, which usually require considerably less of the physician's time.

Other objections have been raised as well. Rural doctors dabbling in mental health care might end up relying too much on medication, or they might recognize a mental health problem too late, both of which are harmful to patients, said Ron Brand, executive director of the Minnesota Association of Community Mental Health Programs in St. Paul.

A solution might be for family practitioners to establish closer—and more concrete—ties with the mental health community, Brand said. The relationships, he said, should be structured such that there are incentives to improve access, ensure quality, and contain costs.

Rebecca Buller, executive director of the Minnesota Psychological Association, said her association has another worry about rural physicians delivering mental health care: "The position of our association is that family and general practitioners are not trained to do mental health care, so [relying on them to provide it] doesn't improve access for rural residents."

Buller says she wouldn't want rural residents to have to "settle" for mental health care that is any different from what urban residents receive. "The issue is access and how to get more mental health professionals into Greater Minnesota," she said.

Perhaps one way to do that is to offer attractive financial incentives. A recent and significant increase in salaries was a major reason the state's Regional Treatment Centers were able to recruit mental health professionals to Greater Minnesota, according to Beecher, who said he's noticed that more Twin Cities-area psychiatrists are spending time in outstate Minnesota, primarily with mental health centers, either on a consulting basis or actually treating rural patients. But he said not enough psychiatrists are doing that.

"I think we need 100 more psychiatrists in Minne-

sota, not just to locate in rural areas but to act as consultants to family practitioners and mental health centers," he said. "But in order for psychiatrists to do these consultations, we're going to have to pay them more for services that differ from counseling or psychotherapy."

Until the psychiatrists' numbers increase, Marshall psychologist Riedel suggests a possible stop-gap measure: using interactive TV. Riedel said psychiatrists could consult with rural primary care physicians who may have questions about treatments for certain patients. With interactive TV, patients wouldn't have to wait as long to see psychiatrists and they wouldn't have to travel long distances to receive treatment.

Of course, as last fall's MHA/MMA survey noted, psychiatrists aren't the only medical practitioners in short supply in rural Minnesota; 78 percent of the responding rural hospitals said they were actively recruiting doctors.

The MMA and the MHA have issued several recommendations for increasing the number of rural physicians. Among the suggestions: increasing medical students' exposure to rural lifestyles and rural practices, increasing the number of medical students from rural communities, providing

tax relief or school loan forgiveness programs to physicians who practice in rural Minnesota, and offering grants to rural hospitals so they can use temporary physicians to free up medical staffs from constant week-end emergency room duty.

But perhaps the most important measure that could be taken is adjusting the inequitable Medicare reimbursement to rural physicians. Currently, physicians in northern Minnesota receive the fourth lowest Medicare reimbursement out of 247 Medicare localities nationwide. Medicare payments to physicians in southern Minnesota rank second from the bottom. Meanwhile, an increasing number of physicians, many of them rural, have been forced to limit the number of Medicaid patients they see. In many rural areas this severely restricts patients' access to a provider.

### Community Networks

While efforts to attract doctors to rural areas continue, general practitioners should be working in concert with community mental health center professionals, peer counselors in the community, and families to improve rural residents' access to mental health care. There seems to be near unanimity among mental health policy-makers that peer outreach counseling is an effective way to improve nonmetro residents' access to mental health care. These outreach counselors could include clergy, bankers, agricultural extension personnel, farmers, and others in the community.

Peer counselors offer several advantages: They truly understand rural culture and, thus, can better establish

"The best thing to do to improve access is to upgrade primary care doctors' knowledge about mental disorders."

—Delores Parron

trust and sympathize with a rural person who is experiencing mental health problems; with the shortage of mental health professionals, they fill a need in the community; they help break down stigma barriers, demonstrating to rural residents it's OK to discuss their mental health concerns; and finally, because outreach workers pay on-site visits, troubled rural residents needn't worry about the stigma attached to going to a community mental health center.

The Illinois Department of Mental Health has operated a successful peer outreach program since 1986. "I know for a fact that many people we've talked with would never have gone in for mental health treatment," said a program spokesperson who testified at the Marshall public hearing. "We're referred to them by someone else, and we go right to their kitchen table and ask how things are going. We start by talking about their financial problems and it goes from there. They get a chance to talk with someone, and sometimes that's all they need."

The NIMH's 18-month Rural Mental Health Demonstration Project, which involved 25 counties in southwestern Minnesota, is another program that emphasized peer outreach counseling. The project yielded good participation from the clergy, agricultural extension personnel, farm advocates, adolescents, and others. Although the project ended in September 1989, some of its components are still being used.

"One of the things we learned from the project is that we should strengthen the institutions that are already there—the churches, the banks, the chambers of commerce, the ag extension organizations," said Kaufman. Communities should make these institutions a part of their support systems, instead of relying strictly on mental health professionals and outside help, she said.

Family intervention also has been endorsed as a way to improve the mental health of rural residents who don't have ready access to professional treatment. In fact, the National Alliance for the Mentally Ill says the family can play a significant role in improving the mental health of residents, said Beecher.

Joan Blundall, a coordinator for the Northwest Iowa Mental Health Center in Spencer, which involves families in its mental health treatment programs, said rural families respond to an aggressive outreach program that encourages them to develop their own solutions. Blundall also noted such an approach is cost effective.

The center has made significant inroads into providing mental health care access to rural residents. Blundall says a key to encouraging use of the center lies in establishing trust among the community residents and understanding how they think.

"The mental health center is part of a community care team that will allow me to share my skills only when

an individual and community trust has been earned," Blundall said. "Workers will be expected to give talks from the pulpit, be on committees with clients, and attend such events as the Pork Producers Conference. Without an understanding of how rural communities work, it will be impossible for us to create understanding about mental illness in rural communities."

Community mental health centers also serve as an option for rural residents needing treatment. Each of the 87 counties in Minnesota has access to a community mental health center. The centers usually are funded by block grants from counties, state and federal grants, private parties, third-party payers, and Medicaid and Medicare.

Services offered at the centers vary. The Northland Mental Health Center in Grand Rapids, for example, offers three levels of services: for the chemically dependent, for the seriously and persistently mentally ill, and for short-term outpatients who have problems such as stress or depression, said Northland CEO Kenneth Eck.

"In a lot of cases, community mental health centers are the only option for rural residents; there may not be a private mental health center for people to go to," said Clark Guhin, executive director of the Southwestern Mental Health Center in Luverne, Minnesota. "But access isn't a problem; the problem is a reluctance by rural people to use mental health services."

Diminishing that reluctance has become a primary goal of the NIMH, according to Judd, who said he believes stigma barriers are gradually breaking down as more information is distributed about the causes of mental health problems.

"We have now come to the point where the scientific information is so strong that we know we are dealing with brain dysfunctions that are highly specific, diagnosable, and treatable," said Judd, assuring the Marshall audience that the NIMH is committed to improving access to mental health care and eradicating the stigma of mental illness in rural America. Two very visible examples of this commitment are the public hearing in Marshall and the NIMH's recently established Office of Rural Mental Health Research, which, among other things, will examine access issues and showcase successful models.

Meanwhile, Minnesota has taken up the fight. "It's going to take a lot of time and energy and a fair amount of dollars to meet the needs of the folks who have mental health problems," said the Department of Human Services' Kaufman, "but I've certainly seen a lot of commitment on the part of the legislature and in the department to find solutions. We've only begun the attack." MM

*Harvey Meyer is a free-lance writer who lives in Minneapolis.*





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## Sports Medicine Seminar

# Heat Illness

*Daniel D. Buss, M.D., John M. Kelly, D.P.E., Gary D. Reinholtz, M.A., A.T.C., William O. Roberts, M.D., and David A. Fischer, M.D.*

### ABSTRACT

A 17-year-old girl collapsed during a field hockey practice on a hot August afternoon, apparently suffering from heat illness, which is responsible for about 5,000 deaths annually. A panel of experts explores this girl's case, discusses heat illness in general, and makes recommendations about diagnosis, prevention, and treatment.

### Introduction

Fischer: Heat-related illnesses are responsible for thousands of deaths and innumerable cases of exhaustion and cramps in active individuals annually. In the midst of the hot and humid season, it is prudent to refresh our knowledge of this serious and largely preventable condition.

### Case Presentation

Buss: A previously healthy 17-year-old girl collapses during a late August high school field hockey practice. On evaluation at the field, she is alert but disoriented, pulse is 140, respirations are 22, and she is found to be sweating profusely. Her coach arranges transportation to an emergency room.

On arrival in the emergency room, her blood pressure is 100/46 and rectal temperature 42° C. She now responds inappropriately to questions and is becoming combative.

### Discussion

Buss: Dr. Roberts, could you give a differential diagnosis based on this case?

Roberts: The differential diagnosis in a previously healthy individual would include heat stroke, endocrine disorders such as pheochromocytoma or thyroid storm, and a sudden overwhelming infection. The most likely diagnosis, though, would be heat stroke.

Buss: Mr. Reinholtz, could you estimate the number of deaths per year in the United States that can be attributed to heat-related illness?

Reinholtz: Approximately 5,000 deaths per year can be attributed to heat stroke. About 80% of the deaths occur in persons older than 50 years of age; however, many young, physi-

cally fit individuals die from exertional heat stroke each year.

Buss: As a trainer, which group of athletes do you believe are most at risk for developing heat stroke?

Reinholtz: Athletes who participate in football, soccer, rugby, and long-distance running events are very susceptible. However, any athlete working out in hot, humid conditions can be a potential victim.

I think it is important to note that heat-related illnesses do not necessarily strike only the athlete who is out of condition. An athlete in excellent shape can also be affected. Overweight athletes are highly susceptible because of their high mass-to-surface-area ratios.

Buss: Dr. Roberts, what other groups are susceptible to heat stroke?

Roberts: Other susceptible groups include athletes who are not acclimated to hot, humid conditions and athletes on medications. Among non-athletes, children under 12, the elderly, the chronically ill, and individuals with abnormally functioning skin (due to burns or scleroderma, for example) are all susceptible.

Buss: What characterizes heat exhaustion and differentiates it from heat stroke?

Roberts: The symptoms common to both heat exhaustion and heat stroke may include fatigue, headache, anorexia, nausea, diarrhea, cramps, and an elevated temperature. Individuals with heat stroke have higher body temperatures and, more important, have a change in their mental status.

Buss: The classic triad of heat stroke is an elevated temperature, a change in mental status, and anhidrosis, or failure to sweat. Is anhidrosis a key



factor in making this diagnosis?

**Roberts:** No, many of the people I deal with in road racing and other athletic events differ from classic heat stroke cases in that they are still sweating.

**Buss:** What are some of the typical laboratory abnormalities found in these patients?

**Roberts:** Respiratory alkalosis is common in classic heat stroke, whereas lactic acidosis is common in exertional heat stroke. Both groups can have lowered glucoses, increased liver function tests, decreased calcium, decreased coagulation factors, and elevated CPK levels.

**Buss:** Dr. Kelly, can you briefly describe the pathophysiology of heat stroke?

**Kelly:** We know that the body loses its ability to lower its temperature. More heat is being produced than can be dissipated, and the heart is just not able to keep pace with the increased demand for blood flow to the skin and muscle.

One of the most interesting theories at this time is that the splanchnic area suddenly vasodilates and causes a decrease in blood pressure. Additional blood flow is diverted from the skin and further decreases the body's ability to dissipate the heat being generated.

**Buss:** Have any studies documented the core temperatures at which irreversible cell damage occurs?

**Kelly:** Yes, but they are very contradictory. Cell metabolism is affected above 42° C, and tissue damage or death occurs around 46° C. Recent studies, though, have indicated that the threshold may be much lower than originally reported.

**Buss:** Heat stroke is usually defined as core temperatures at or above 41° C. Are any tissues in particular at greater risk for damage in heat stroke?

**Kelly:** The kidney, liver, and central nervous system seem to be more susceptible to the elevated core temperature.

**Buss:** Mr. Reinholtz, what are some of the risk factors that you as a trainer

*Minor Heat Illnesses*

**Heat cramps:** Acute, painful muscular contractions involving those muscles that have been subjected to intense physical work. The treatment is cooling and hydration.

**Heat tetany:** Carpopedal spasm related to the respiratory alkalosis that develops during the normal hyperventilatory response to increased body temperature.

**Heat edema:** Dependent edema that develops in unacclimated individuals and resolves spontaneously.

**Heat syncope:** Orthostatic dizziness in an individual exposed to high environmental temperatures.

can be aware of to help prevent heat-related illness?

**Reinholtz:** Many risk factors predispose an athlete to heat-related illness. One would be poor physical conditioning. This is something coaches need to realize. Quite often they are dealing with a team whose members are not equally fit, and yet they are pushing everyone to the same degree. Coaches and trainers can lower risk by scheduling workouts during the cooler parts of the day, increasing the frequency of water breaks and rest periods, limiting clothing and athletic gear, and monitoring the athletes for significant weight loss. A 3% drop in body weight within 24 hours is significant.

**Roberts:** I would like to add a few points. An athlete who develops an illness during training will be more prone to heat exhaustion. Also, athletes on medication will need close monitoring.

**Buss:** What is your opinion on water replacement versus balanced salt solution replacement?

**Kelly:** People ask me what is the best drink, and, of course, I can say water every time. You can't go wrong with water unless you're dealing with a situation where heat injury may be common. Then the evidence supports adding a small amount of salt and carbohydrate to the water.

**Buss:** For a team on a limited budget, is water still the best replacement to have on the field?

**Kelly:** Absolutely.

**Buss:** How long does it take for an individual to become acclimated to a hot climate?

**Kelly:** The classic studies show that most athletes will adapt to a change in climate within 12 to 14 days. A significant amount of acclimation can be accomplished within five days, but it takes two weeks to be fully acclimated.

**Roberts:** I want to emphasize that children take longer than adults to adapt to a hot climate. Most of the studies on acclimation have been performed on adults, and information on children is lacking.

**Buss:** Mr. Reinholtz, as a trainer, what are some of the on-field treatments you can use for heat stroke?

**Reinholtz:** Recognition of the condition is the key. Knowledge of the signs and symptoms is essential to initiate proper treatment. Additionally, an emergency plan to deal with these crucial situations must be in place before any practice or event.

Specific on-the-field treatment by coaches and athletic trainers for heat cramps, heat exhaustion, and heat stroke should include the following:

Heat cramps usually can be alleviated by massaging, stretching, and icing the affected cramping muscles. Giving the athlete fluid to drink is important, especially an electrolyte drink to replace sodium and water.

Heat exhaustion is not normally life threatening, but immediate recognition and treatment is important. First, remove as much of the athlete's clothing and equipment as possible

to aid in the cooling process. Second, get the athlete into a cool environment.

Heat stroke requires immediate appropriate treatment upon recognition. This is critical, because it is a life-threatening problem, and early cooling of the person may make the difference in recovery. This is a medical emergency, so call an ambulance immediately. Lower the body's temperature by removing most clothing and equipment to prevent the retention of body heat and move the athlete out of the sun into a shady area. As soon as possible begin rapid cooling with ice packs or cold wet towels over the extremities and torso.

**Buss:** Would you give a brief synopsis of the treatment of heat stroke and heat exhaustion with emphasis on the case we are discussing?

**Roberts:** In the field, I would first remove excess clothing, move the patient to a shaded area, wet down the face, and then wet down the body so heat loss can begin. We have had good results at the Twin Cities Marathon applying ice packs to the groin, axilla, and neck and wetting the skin to increase evaporation. Immediate hydration is important; we use oral fluids if possible and intravenous fluids when necessary.

Once the patient is brought to the emergency room, more aggressive treatment may be instituted in the case of heat stroke. The gold standard is the immersion technique, which is placing the person in an ice water bath. This involves some risk, because you can no longer monitor the patient adequately once he or she is in the bath. Cool mist and fans work well and allow continuous cardiac monitoring. Other techniques such as peritoneal, NG, or rectal lavage may or may not work as well as the standard techniques.

The biggest risk for the heat-stressed victim is waiting 20 or 30 minutes with an elevated body temperature before emergency treatment is started.

**Buss:** Dr. Kelly, aspirin and Tylenol are used to treat fevers in cases of high body temperatures. Are aspirin or Tylenol recommended in heat-

related illness?

**Kelly:** No, the body's thermostat is not defective in these cases.

**Buss:** Is one specific IV fluid better for rehydration of these patients?

**Roberts:** In road racing events of less than four hours, we tend to use D5W1/4NS, and in events lasting longer than four hours, we use D5WNS. In the emergency room, we use either normal saline or lactate ringers. The most important thing is to support the patient with sufficient fluid volume, and if large amounts of IV fluids are required, the serum electrolytes must be monitored.

**Buss:** What are the common complications encountered post heat stroke?

**Roberts:** The three most common are disseminated intravascular coagulation, rhabdomyolysis, and acute renal failure.

**Buss:** What is the prognosis if treatment is initiated early on in the course of heat stroke?

**Roberts:** Of all the heat stroke patients we have taken care of from the Twin Cities Marathon, no one has been hospitalized overnight. All of the patients have left the emergency room within four hours of their arrival at the medical tent. The longer you wait, the worse the prognosis. That's why early treatment is so critical for these patients.

**Buss:** Once a person has had heat stroke, is he or she more susceptible to it in future?

**Kelly:** We originally thought that was the case. Recent research has shown, however, that susceptibility is more related to pre-existing conditions that increase the risk of heat stroke.

**Buss:** In summary, heat exhaustion and heat stroke are commonly encountered disorders in athletic individuals. They are preventable if appropriate precautions are considered prior to and during an athletic practice or competition.

Once an individual is experiencing heat stroke symptoms, immediate lowering of the body temperature is imperative to prevent an elevated core temperature.

*Moderator Daniel Buss is an orthopedic surgeon with Orthopaedic Consultants, P.A., and a staff member at Braemar Sports Medicine Center, Edina, Minnesota.*

*John Kelly is a professor in the Department of Physical Education at St. Cloud State University and is the director of the Human Performance Laboratory, St. Cloud, Minnesota.*

*Gary Reinholtz is program director of the Athletic Training Curriculum major at Gustavus Adolphus College, St. Peter, Minnesota.*

*William Roberts is in family practice and sports medicine with Minn-Health, P.A., in White Bear Lake, Minnesota.*

*David Fischer is an orthopedic surgeon with Orthopaedic Consultants, P.A., and a staff member at Braemar Sports Medicine Center, Edina, Minnesota.*

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# Prescribing Issues Grant Report to the Board of Medical Examiners

## *Second of two parts*

*Minnesota Medical Association*

**Editor's Note:** In response to a growing number of prescribing complaints over the last few years, the Minnesota Board of Medical Examiners (BME) awarded a contract to the Minnesota Medical Association (MMA) in the spring of 1989 to determine the prevailing prescribing practices of Minnesota physicians.

Following is Part 2 of the MMA's final Prescribing Issues Grant Report submitted to the BME. It summarizes the results of a statewide survey conducted in the fall of 1989 to determine physician prescribing practices and includes commentary by the Prescribing Issues Grant Advisory Committee, which studied the issue and compiled the report.

The first part of the report appeared in the July 1990 issue of *Minnesota Medicine*. Copies of the complete report, including a more detailed description of the survey methodology, additional figures, and appendices, can be obtained by contacting the Board of Medical Examiners, 2700 University Avenue West, Suite 106, St. Paul, MN 55114-1080.

### *Stimulants*

#### *Survey Results*

Question 14 of the survey asked physicians to identify the treatments most frequently used for obesity. The most frequently cited option was an exercise program; second was referral for dietary counseling. The option used least often was prescription of anorectic agents, with just 1 percent of the sample utilizing this option daily or weekly, and 13% utilizing it monthly or less. The remaining 86% of the sample responded that they "never" take that step in the treatment of obesity (Figure 1).

Significant analysis was undertaken to determine whether or not

subgroups existed among those who do prescribe dysorexic drugs. Broken out by specialty, family practice physicians were most likely to prescribe anorectics occasionally, at 23%, followed by psychiatrists at

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"Survey results indicate diversity and overall appropriate prescribing practices by Minnesota physicians."

13%, other medical specialists at 11%, internists at 8%, and surgeons at 4%. No anesthesiologists or pediatricians reported ever prescribing anorectics.

A sharp difference in practice patterns is revealed when responses to this question are examined on the basis of the respondents' ages. Nine percent of physicians under 40, 15% of physicians in their 40s, and 11% in their 50s prescribe anorectics. For physicians age 60 and over, this number increases to 30%, the majority of whom are still prescribing anorectics infrequently (monthly or less) (Figure 2).

Regional disparities also are revealed on this issue, with Rochester physicians least likely to prescribe anorectics (3%) and rural physicians most likely to do so (24%). Both Twin Cities and outstate metro physicians fall into the 12% to 13% range.

Question 16 asked physicians about the methods they most commonly used to treat hyperactive chil-

dren. For those physicians who treat some hyperactive children, the most commonly used treatment methods are consultation with school personnel (13%) and the prescription of Ritalin (12%). Psychiatric counseling was the clear third choice, at 8% (Figure 3).

This question was subjected to a separate analysis that examined only those physicians who indicated that 75% or more of their patients were under age 15. Among those physicians, Ritalin and consultation with school personnel remain essentially tied in first place, but referral for psychiatric counseling falls to fourth place behind "other" options. This implies that those physicians who see the greatest proportion of young patients have developed other treatment methods besides the three primary options utilized by other practitioners.

#### *Commentary*

Stimulant medications have a clinically useful role in childhood hyperactivity and narcolepsy.

**Hyperactivity:** Stimulant medications are most frequently used to treat children diagnosed with attention deficit disorder. Hyperkinesis, poor attention span, impulsivity, and distractibility are all symptoms of this disorder, which affects a child's ability to learn.

Many children with learning disorders may not be able to concentrate for prolonged periods of time because of their inability to suppress and segregate multiple stimuli. Two direct effects of stimulants are to prolong attention span and to promote focused motor activity. Appropriate diagnostic efforts, often accompanied by psychometric testing, should be undertaken before prescribing these medications. Efforts to

manage school-age children also should be coordinated with the appropriate staff of the child's school or district. Appropriate consultation may be necessary before treating a child with a stimulant.

It is also important to obtain the child's family history before prescribing stimulants, because of the potential for drug-abusing parents or relatives to misuse the child's prescribed medication.

**Narcolepsy:** Another recognized use for stimulant medications is in the treatment of classic narcolepsy. This diagnosis should be established by appropriate evaluation, possibly with the inclusion of sleep disorder laboratory testing.

**Obesity:** The treatment of obesity will rarely include the use of stimulant medications, except in extraordinary circumstances. Simple control of appetite for convenience is not acceptable. In those rare circumstances in which appetite suppressants are used, documentation of the need, progress, and follow-up visits is important. It is interesting to note that several states have completely banned the use of appetite suppressants in the treatment of obesity.

### Anabolic Steroids

Androgens or anabolic steroids are used for replacement therapy in hormone deficiency states in male patients and for certain gynecologic conditions and metastatic breast carcinoma in women. These drugs

also are used in certain circumstances to increase growth and to stimulate hematopoiesis in some refractory anemias.

The use of anabolic steroids to improve athletic performance is "contrary to the ethical principles of athletic competition and is deplored" (American College of Sports Medi-

## Prescribing Issues Grant Report

### Board of Medical Examiners' Statement

The Board of Medical Examiners (BME) is pleased to receive the Prescribing Issues Grant Report and the conclusions of the grant advisory committee.

Malprescribing issues continue to be a major element of complaints received by the BME. This study, funded by the BME, was undertaken to give the BME a greater appreciation for the prescribing patterns of controlled substances in Minnesota. We believe this document fulfills that goal.

The report can be useful to practicing physicians in understanding patterns of practice but should not be cited as the basis for prescribing in a particular situation, as the survey did not address prescribing on a per case basis.

The BME, in evaluating complaints, looks at each complaint as a separate issue, determining whether the minimum community standard of care for that patient has been breached. The BME's charge through all its deliberations is to protect the public.

The study should aid both the practicing physician and the BME in their common goal of high-quality and appropriate medical care for patients in a competent and safe environment.

The BME expresses its thanks to the Minnesota Medical Association, its staff, the Prescribing Issues Grant Advisory Committee, and the physicians who took the opportunity and gave the effort to respond to the survey.

Board of Medical Examiners  
July 7, 1990

cine, 1984). The performance benefits derived from the use of anabolic steroids are far outweighed by the potential for dangerous side effects such as liver damage, cardiac failure, and impotence.

### Documentation

#### Survey Results

Question 36 posed the question, "If other physicians cover for you on nights or weekends, how are you informed of prescriptions/refills issued during those hours?" The most common form of communication mentioned was through notations in the patient's chart (50%), followed by verbal communications (31%). Of those responding, 26% said they have had no formal procedure for communication, while many respondents said they follow the practice of prescribing very small amounts to patients under these circumstances.

Most physicians track controlled substances medication in the chart progress notes (69%), while 20% have a combined approach of using

Fig. 1: Treatment Options for Obesity Utilized on a Daily or Weekly Basis, Ranked

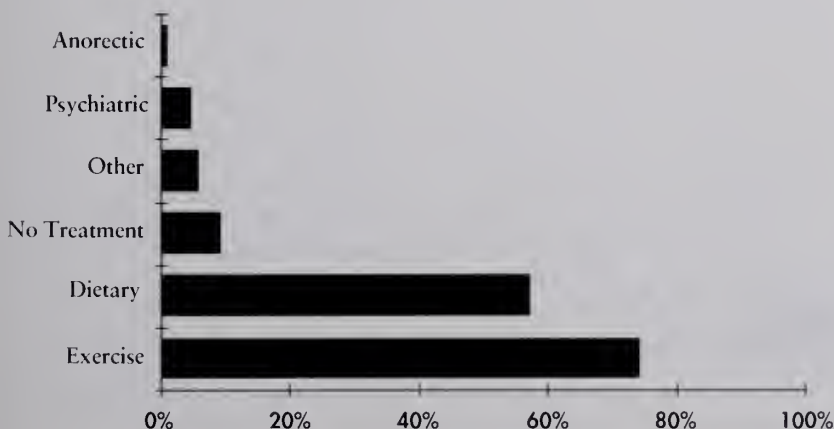




Fig. 2: Prescribe Anorectic as Treatment for Obesity, by Age

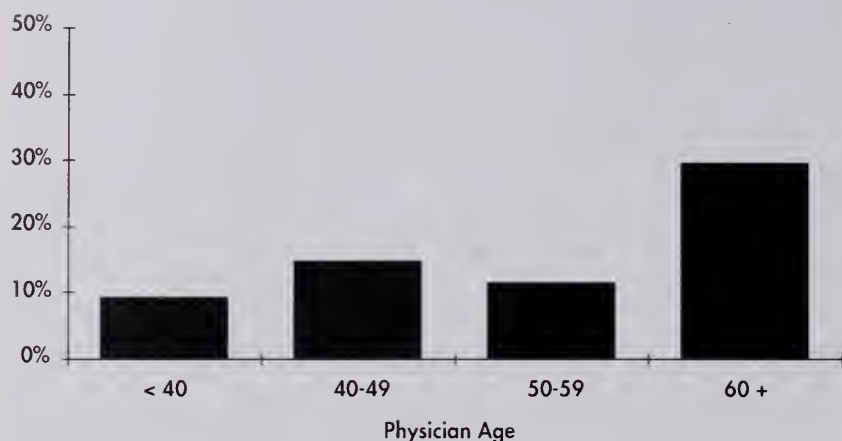
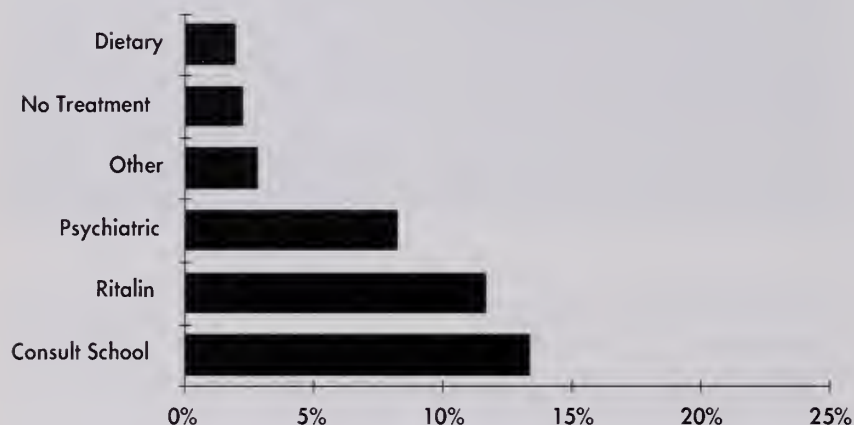


Fig. 3: Treatment Options for Hyperactivity Utilized on a Daily or Weekly Basis, Ranked



those notes with a separate summary sheet.

### Commentary

Documentation has become increasingly important in all areas of medicine, and it is critical when prescribing a controlled substance for any reason, whether long- or short-term. When prescribing a controlled substance for chronic use, documentation of the following information is recommended:

- An indication for treatment through a clear clinical description of the patient's condition and a working diagnosis supported by clinical, anatomical, and/or laboratory data;
- A treatment plan that includes a risk/benefit assessment, expected length of therapy, and any specific

communications with the patient concerning the use of a controlled substance;

- Chemical dependency screening;
- Alternative treatments that were attempted or any contraindications to alternative therapies or any extenuating circumstances;
- Communications from consultants should be referenced in the patient's chart and the actual letter or photocopy filed in the chart;
- Periodic re-evaluations regarding indications for refills. State laws are only guidelines for the maximum number of refills allowed. Suspected abuse of the medication should also be re-evaluated.

The need for documentation in both the acute setting and the long-

term care setting also is an issue that has been discussed in the literature. It is important that nursing home patients have the same documentation and periodic review of the indications for treatment with a controlled substance as patients in acute care or outpatient settings. Additional OBRA requirements concerning drugs and nursing home residents are scheduled for implementation in October 1990.

## Chemical Dependency Patients

### Survey Results

Question 28 asked respondents whether they prescribe certain drugs for chemically dependent patients. Clear ranking emerged in physicians' willingness to prescribe these substances to a chemically dependent but currently sober patient. Respondents found antidepressants to be the most acceptable option, with 54% of those finding the question applicable to their practices willing to prescribe them. Non-benzodiazepine anxiolytics, at 26%, were another somewhat acceptable option for physicians. Far less acceptable were benzodiazepines (8%) and barbiturates (less than 1%). Of those finding the question applicable to their practices, 38% said they would not prescribe *any* of the listed substances to a chemically dependent patient.

Physicians were asked in Question 29 about the circumstances under which they would prescribe classes of narcotic analgesics to a chemically dependent patient. Physicians were most willing to prescribe a schedule III drug for acute pain, and least likely to prescribe a schedule II drug for chronic pain. Across the board, physicians were most likely to set a limit of one month or less as the length of time they would be willing to prescribe any narcotic.

Question 30 asked physicians whether any of their patients had ever developed an addiction requiring treatment based on prescriptions issued by the physician. Of those responding, 12% reported this occurrence. However, this figure is misleading if one's purpose is to determine the likelihood of this oc-

curing over the course of a physician's career. When the responses are examined according to number of years in practice, only 3% of physicians in practice for less than five years have had this outcome; whereas 17% of those in practice for more than 20 years have had a patient develop such an addiction. This 17% figure is a better estimate of the physician's *lifetime* probability of encountering this problem than the 12% overall average generated by the survey (Figure 4).

Question 31 asked physicians whether their offices had a system for identifying patient charts to alert physicians to possible chemical dependency. Based on the responses, most practices do not label patient charts to identify chemical dependency, with just 28% of the respondents reporting that they utilize some method, e.g., a red sticker, to identify those charts. No significant variation emerged based on size of clinical practice.

#### Commentary

The medical indications for treating a chemically dependent patient with a controlled substance should be well established and well documented. Considerable caution should be used when prescribing a controlled substance to a substance-dependent patient. However, these drugs should not be withheld from the dependent patient when there is a clearly identifiable medical indication. The survey indicates Minnesota physicians do exercise caution when prescribing a controlled substance to a chemically dependent patient.

Screening for chemical dependency is important whenever controlled substances are prescribed, but it is especially important when these drugs are used in patient treatment for more than an acute situation. Substance dependence, abuse, and misuse should be considered in older patients as well as younger patients, including patients living in nursing homes.

When physicians are treating an elderly patient, it is important to have a complete inventory of both prescription and over-the-counter drugs to reduce the risk of drug

duplication and adverse drug interactions.

Awareness of cross-dependence and cross-tolerance is also important when prescribing a controlled substance to a chemically dependent patient. These terms are defined as follows:

**Cross-dependence:** Patients addicted to alcohol or other mood-altering chemicals have a high propensity to transfer addictions.

**Cross-tolerance:** Resistance to a drug that develops through continued use of another drug with similar pharmacological action. A patient who requires large doses of a controlled substance for usual therapeutic purposes might be screened carefully for chemical dependency.

### Fraud Prevention

#### Survey Results

Question 33 asked physicians about the methods they use to protect themselves against patient fraud. The respondents reported using a wide variety of methods to detect patients who fraudulently "shop" for physicians to prescribe controlled substances. Of the physicians responding, 64% report suspicious patients to colleagues, 56% will telephone the patient's last physician to confirm a history, and 59% will check with a local pharmacist.

Less commonly used methods to detect fraud include calling the local hospital (25%), reporting suspicious patients to the police (20%), requir-

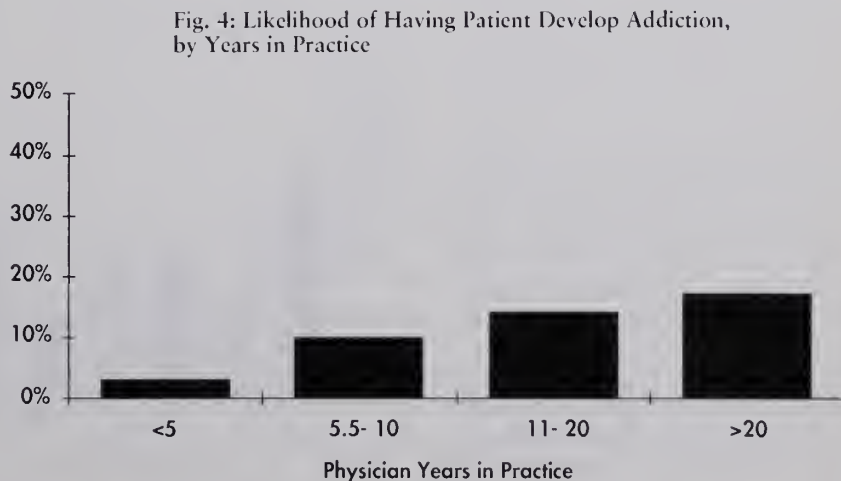
ing patient identification (17%), and calling to verify a home telephone number (14%). The respondents' written comments yielded a rich listing of possible fraud-prevention measures, including maintaining a list of suspected drug abusers, either through one's medical practice or through a community pharmacy.

Question 35 asked physicians whether any of their prescription pads had ever been stolen or misplaced. About one quarter of the respondents report knowledge of having lost a prescription pad or having one stolen. Again, this is a measure that is particularly sensitive to the physician's years in practice. Only 9% of the physicians in their first five years of practice report knowing about the loss of a pad, while 33% of those with 20 years of experience described such a loss. The 33% figure better estimates the likelihood of a physician experiencing the loss of a prescription pad over the course of his or her career.

Question 34 asked physicians where they keep their prescription pads. Based on the responses, physicians most commonly keep their pads in a desk drawer (60%), followed by a jacket pocket (35%), nurses station (34%), patient examination rooms (22%), and a locked cabinet (16%).

#### Commentary

The widespread problem of both illicit and prescription drug abuse increases the probability that physicians will encounter many drug-





related problems among their patients. The challenge for physicians is to recognize the drug-abusing or drug-diverting patient and then try to confront, treat, and/or refer the patient accordingly.

Because forged and altered prescriptions may be common problems, physicians should consider the following procedures to prevent fraud:

- Treat prescription pads like a personal checkbook and maintain adequate security for them. Do not leave them in unattended examining rooms, office areas, or in your bag or car, where they can be easily stolen.
- Do not leave pads unattended when in use. When not in use, place them in a locked drawer or cabinet. Store surplus stock in a locked area.
- Report any prescription pad theft to the state Board of Pharmacy and the Minnesota Board of Medical Examiners.
- Never sign prescription blanks in advance, even when working with allied health professionals.
- Never write for more than one controlled substance on a single blank.
- Spell out the number of units and strength to be dispensed along with the Arabic numeral.
- Personally respond to all calls from pharmacists to verify controlled substance prescriptions. They share in the responsibility to fill your prescription correctly and appropriately.
- Give specific directions for use: do not use "prn" or "as directed" without supplying additional information.

It is recommended that controlled substances *not* be prescribed for the following purposes:

- To produce euphoria;
- To maintain drug-dependent behavior;
- For detoxification or maintenance treatment of non-hospitalized, opioid drug-dependent persons. Federal and state law limit this form of treatment to physicians with special licenses, and limit the narcotic drug to methadone;
- Upon the specific request of the patient, who may be simulating a disease condition or feigning physical or psychological problems;
- To comply with coercive tactics,

including attempts to elicit sympathy or guilt, direct threats of physical or financial harm, bribes, or the use of names of influential family members or friends.

- Self prescription or prescription for immediate family members for other than acute situations.
- In any other situation for which an appropriate medical history and/or physical examination cannot be documented.

Familiarity with federal and state regulations regarding the prescribing of controlled substances will also help prevent physicians from falling victim to the fraudulent patient.

Physicians should be aware that they also are responsible for the prescribing practices of any allied health care professional to whom they may have delegated prescribing authority. All federal and state regulations apply in these circumstances as well.

## Physician Education

### Survey Results

Question 32 asked physicians whether they had received any formal education in identifying chemically dependent patients. Of those responding, 27% reported having had no formal training in this area. Among those who said they had received such training, younger physicians were far more likely to have received such training in medical school or residency programs, while older physicians were more apt to have

gained this training through continuing medical education (Figure 5).

Respondents were asked in Question 38 about the usefulness of a variety of sources of information regarding prescribing practices. They were asked to rank those sources as a major source, an occasional source, or rarely helpful. The top three items among those referred to as major sources were the Physicians Desk Reference (PDR), at 67%; medical journal articles, at 65%; and conferences and continuing medical education courses, at 60%. Advertisements (12%) and pharmaceutical sales representatives (17%), were least often named as major sources of information (Figure 6).

Overall, 22% of the respondents named hospital pharmacists as a major source of information, but responses varied based on the size of the physician's hospital practice. Just 10% of those seeing one to four patients weekly in the hospital described the hospital pharmacist as a major source, while 31% of those seeing 21 or more patients in the hospital each week named the hospital pharmacist as a major source.

Physicians in all age groups said they find pharmaceutical sales representatives to be an occasional source of information (the range is 52% to 61%). Younger physicians are less likely than older physicians to name them as a major source (11% for those physicians under 40 vs. 27% for physicians age 60 and over).

Fig. 5: Source of Training in CD Identification, by Age

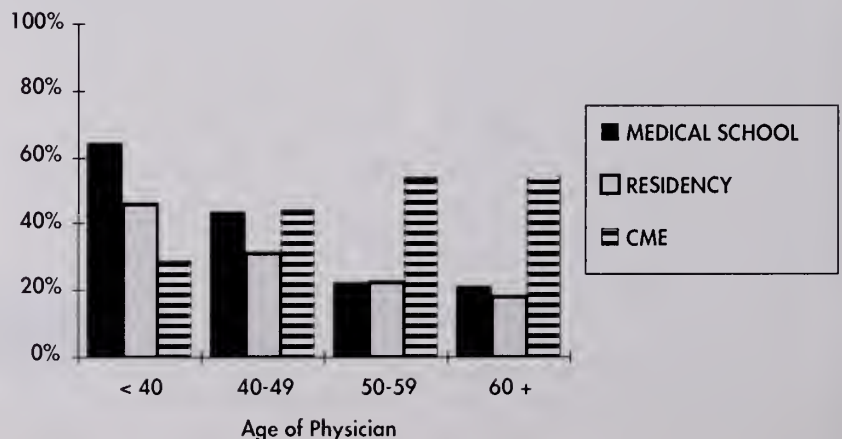
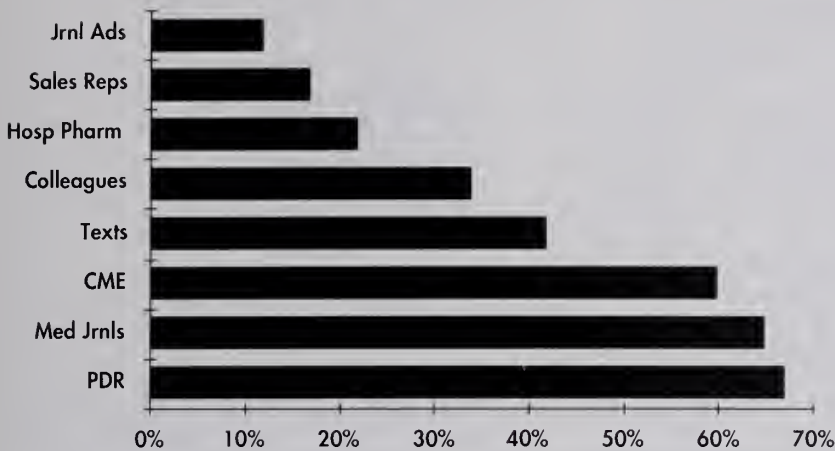


Fig. 6: Sources of Information on Prescribing, Ranked



Physicians who described their practices as following current textbook standards were more than twice as likely as experience-oriented practitioners to name textbooks and reference books as major sources of information (52% vs. 22%). Just 5% of physicians who prescribe according to current textbook standards named reference books as rarely helpful, while 22% of the experience-oriented physicians categorized them in that way.

#### Commentary

The Physicians Desk Reference, medical journal articles, and continuing medical education were identified as the top three sources of information regarding prescribing practices used by Minnesota physicians. The Prescribing Issues Grant Advisory Committee believes the PDR may be commonly used by physicians primarily because it is readily available and has an easy-to-use format. It is often used for information about dosage and side effects. However, it is not usually used by physicians as a "standard" for giving medication or as the only source of information. The PDR has limitations: it lacks complete information about the prescribing of drugs and is not considered by most physicians to be as objective as other sources, e.g., medical literature.

The advisory committee believes medical journal articles and newsletters, as well as expert advice from knowledgeable colleagues, are help-

ful in providing more complete information about prescribing practices, although they are not always as readily available or as "user-friendly" as the PDR. Continuing medical education is also felt to be a good source of information. The advisory committee recommends having more programs statewide that address a variety of prescribing issues.

### Practice Profile

#### Survey Results

Question 40 established a grid of decision points and asked how readily respondents would prescribe a controlled substance in that particular situation. Information measured included type of patient (established, new, or transient), type of prescription (new or refill), and location of contact (in the office or over the telephone).

Most physicians routinely or occasionally issue both types of prescriptions (new or refill) for established patients in their offices, and most will issue a refill over the phone for an established patient. A smaller majority will issue a new prescription for a controlled substance over the phone to an established patient; 44% said they would never take that step.

Most respondents said they will routinely or occasionally issue a new prescription for a new patient in their offices; they were evenly split over the question of refilling another physician's prescription in that set-

ting. Clearly negative attitudes were revealed regarding prescribing for new patients over the phone, with a large majority of the physicians stating that they never refill (87%) or issue (89%) prescriptions for new patients over the phone. Older physicians were slightly less likely to rule out issuing a new prescription over the phone for a new patient, although 80% of responding physicians age 60 and over said they never issued prescriptions under these circumstances.

This negative view of phone prescribing for new patients intensifies when transient patients are involved; 96% of respondents said they would refuse to prescribe over the phone for those individuals. Physicians also expressed negative views toward refilling another physician's prescription for a transient in the office. Their responses were evenly divided on the question of issuing a new prescription for a transient patient in the office.

Physicians were asked in Question 41 how many prescriptions they write in an average week for a specific list of drugs. The drugs prescribed most often by physicians were nonsteroidal anti-inflammatories, with 46% of respondents prescribing them six or more times a week. Second most frequent were narcotic analgesics at 24%, and antidepressants were third at 16%. The most infrequently prescribed were psychostimulants/anorectics, with 94% of respondents writing fewer than one prescription a week for those types of drugs.

Question 42 asked physicians to place themselves on a scale describing their prescribing practice styles as based on their practice experience or based on current textbook standards. Of the physicians responding, 4% placed themselves on the "experience" extreme, and 2% placed themselves on the "textbook standards" extreme. The majority, 63%, put themselves exactly in the middle, as combining the two styles. By combining the endpoints with the intermediate scale points between the extremes and the middle, larger groups were developed for analysis (i.e., 20% experience, 63% even com-



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bination, 18% textbook standards).

Older physicians were very slightly more likely to rely on experience (scale value of 2.8 vs. 3.1 for younger physicians), but this difference is too small to be considered meaningful. More significant variations arose between specialties, with pediatricians relying more on a textbook standard style (3.4), and ophthalmologists more on their own experience (2.7).

### Commentary

The Prescribing Issues Grant Advisory Committee believes the survey results indicate that Minnesota physicians generally exercise caution and good judgment when prescribing controlled substances.

Prescribing a controlled substance over the phone for a new or transient patient is not recommended. Caution should be used when issuing a new prescription or a refill of a controlled substance over the phone for an established patient as well.

Physicians should be aware that drug-abusing patients will often call

late in the day or after regular hours and/or ask for a specific drug.

### Summary

The Prescribing Issues Grant Advisory Committee believes that the survey results indicate diversity and overall appropriate prescribing practices by Minnesota physicians. The committee's recommendations are intended to promote continued appropriate prescribing practices.

In general, controlled substances are not indicated for the treatment of chronic conditions. Situations may occur, however, in which a physician may elect to use controlled substances to treat patients for chronic conditions. In these infrequent instances, documentation in the patient record is paramount.

While diversity in prescribing practices is recognized, physicians have a responsibility to be aware of the problems of potential prescription drug diversion and abuse when they prescribe a controlled substance. Physicians should guard against abuse while assuring that these medications

are available to patients who truly need them for clearly documented medical reasons.

MM

*This report of the Prescribing Issues Grant Advisory Committee represents the results of the review, study, and discussion of information and issues relating to the prescribing of controlled substances by Minnesota physicians. This report is not intended to be construed or to serve as a standard of medical care. Standards of medical care are determined on the basis of all of the facts and circumstances involved in an individual case and are subject to change as scientific knowledge and technology advance and patterns of practice evolve.*

*Specific recommendations contained in this report are intended to provide guidelines for patterns of practice, not for the care of a particular individual. This report may require revision from time to time as warranted by new scientific information, new drugs, or changing technology.*

*The Prescribing Issues Grant Advisory Committee members:*

James L. Anderson, M.D.  
Walter Bailey, M.D.  
Robert Benjamin, M.D.  
Mark Brutinel, M.D.  
Lou Erickson Dobrin, R.N.  
Richard Eisenberg, Ph.D.  
Sharron Erickson, R.N.  
Judy Gerald  
Kathryn Hirschorn, M.D.  
Robert Kaplan, M.D.  
Theresa Lang, R.N.  
John W. Lawrow, M.D.  
Catherine Lloyd, R.N.  
Richard D. Olsen, M.D.  
Robert Pearson, Ph.D.  
Judy Popp-Anderson  
Lawrence M. Poston, M.D.  
Timothy Pryor, M.D.  
Chuck Richards  
Lee Shockley, M.D.  
Peter A. Southorn, M.D.  
Raymond Struck, M.D.  
Jon Talsness, M.D.  
Eric Tangalos, M.D.  
Gary Tollefson, M.D., Ph.D.  
Herbert Whittemore, R.Ph.

Lisa K. Thompson Griggs, MMA,  
project coordinator  
Steve Dombrosk, MMA, survey  
research consultant  
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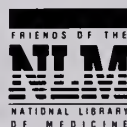
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# Medical Practice Management as a Profitable Investment

*Daniel K. Zisner, Ph.D., Davis D. Fansler, and David D. Rothschiller*

**T**he future favors the medical practice that invests in effective management. Practices that aren't ready to respond to third-party demands and market dynamics will experience decreased cash flow, limited opportunities, and less-than-optimum satisfaction among their members. Given prevailing marketplace pressures, management within the medical group practice should be viewed as a profitable investment rather than an unnecessary expense.

## *Governing a Medical Practice*

To many physicians, the process of effective decision-making in a medical group is unfamiliar territory, and they avoid it. Nevertheless, effective governance in the medical practice is the cornerstone of profitable management. A detailed discussion of medical practice governance is beyond the scope of this paper. Suffice it to say, however, that for management to be effective, a group needs a system to implement strategic direction, capital investment, and decisions related to practice development. A formal governance structure and process are not intended only for larger medical groups; groups with as few as three members also need to develop sound decision-making strategies.

## *Management's Role*

As a backdrop to the concept of management as a profitable investment, it is important to understand that management is not a person or people. It is a process—one by which a business allocates its resources and assets to achieve its strategic and financial goals. The term "strategic" in this case should be interpreted broadly to include quality of care,

since a practice's long-term survival will require a measurable demonstration to the consumer, buyer, and third-party payer that the group provides high-quality, efficient care.

Success in competitive markets

---

"Effective  
governance in the  
medical practice is  
the cornerstone of  
profitable  
management."

requires risky decision making. While many medical groups tend to be risk-averse, risk-laden decisions are unavoidable. In today's fast-changing marketplace, medical groups will be required to make critical decisions more quickly and with less information than ever before. Some level of failure should be expected. However, an acceptable cost of failure should always be determined before any strategy is undertaken. Effectively managed groups accurately determine whether the risks of a strategic venture are worth the benefits.

## *Focusing on What's Important*

How does a medical group know if it's on the right track? It begins by answering several fundamental questions such as:

- Does each physician/shareholder have a clear vision of what he or she wants personally, professionally, and financially from the practice now and in the future?

- Is growth desirable, and will the market allow it at a reasonable price?

- Is the group's current or future position with third-party payers and managed care programs vulnerable?

- Are practice costs well managed?

- Is specialty diversification desirable?

- Is the group taking advantage of available technology?

- Are strategic alliances being pursued with hospital partners?

- Are opportunities available with groups other than patients, e.g., employers and payers?

- Are quality and utilization well managed?

- Have three- to five-year strategic and financial objectives been identified?

- Is the group adequately investing in its future?

If the answer to some of these questions is no, the group may need to re-evaluate its management capabilities.

## *A Case in Point*

A 10-physician, dual-specialty group practice with three locations determines that it should take a careful look at its future. After a detailed examination of the practice, including its operations and its financial and market positions, several substantive issues become apparent:

- Managed care contracts have been structured with a standard 20 percent discount, regardless of how many new patients the HMO provides.

- Coding for office and hospital services is inconsistent and, in some cases, noncompliant with third-party requirements. Revising the coding system could bring as much as

*Continued*



Table

*Uptown Primary Care Group for the 12 months ending XX/YY/90*

|                                       | LYTD               |             | YTD                |             | Budget             |             | Budget Var |
|---------------------------------------|--------------------|-------------|--------------------|-------------|--------------------|-------------|------------|
|                                       | \$                 | %           | \$                 | %           | \$                 | %           | %          |
| REVENUE                               |                    |             |                    |             |                    |             |            |
| Gross patient charges                 | \$3,028,100        |             | \$3,108,037        |             | \$3,075,000        |             | 1.1        |
| Net patient receipts                  | 2,565,059          | 94.5        | 2,759,937          | 95.9        | 2,690,625          | 95.2        | 2.6        |
| Other (interest income, etc.)         | <u>144,860</u>     | <u>5.5</u>  | <u>117,995</u>     | <u>4.1</u>  | <u>135,662</u>     | <u>4.8</u>  | (13.3)     |
| Total Revenue                         | <u>\$2,709,919</u> | 100.0       | <u>\$2,877,932</u> | 100.0       | <u>\$2,826,288</u> | 100.0       | 1.8        |
| EXPENSES                              |                    |             |                    |             |                    |             |            |
| Non-physician employee expense        | 624,956            | 23.7        | 685,879            | 23.8        | 650,994            | 23.0        | 5.4        |
| Other non-physician operating expense | <u>860,079</u>     | <u>31.7</u> | <u>874,892</u>     | <u>30.4</u> | <u>878,100</u>     | <u>31.1</u> | (0.4)      |
| Total operating expense (overhead)    | 1,485,035          | 54.8        | 1,560,771          | 54.2        | 1,529,094          | 54.1        | 2.1        |
| Associate physician expense           | <u>244,866</u>     | <u>9.0</u>  | <u>276,281</u>     | <u>9.6</u>  | <u>262,844</u>     | <u>9.3</u>  | 5.1        |
| Net operating income                  |                    |             |                    |             |                    |             |            |
| available to shareholders             | <u>\$980,018</u>   | 36.2        | <u>\$1,040,880</u> | 36.2        | <u>\$1,034,350</u> | 36.6        | 0.6        |
| MANAGEMENT ANALYSIS                   |                    |             |                    |             |                    |             |            |
| 1. Revenue Summary                    |                    |             |                    |             |                    |             |            |
| Hospital services                     | 454,215            |             | 528,366            |             | 550,000            |             | (3.9)      |
| Office services                       | 1,665,455          |             | 1,647,260          |             | 1,600,000          |             | 2.9        |
| Satellite office services             |                    |             |                    |             |                    |             |            |
| A.                                    | 605,620            |             | 652,688            |             | 650,000            |             | 0.4        |
| B.                                    | 666,182            |             | 714,849            |             | 675,000            |             | 5.9        |
| C.                                    | 514,777            |             | 559,447            |             | 525,000            |             | 6.6        |
| Ancillary services                    | 908,430            |             | 932,411            |             | 925,000            |             | 0.8        |
| 2. Accounts Receivable Summary        |                    |             |                    |             |                    |             |            |
| Total accounts receivable             | 722,880            |             | 741,521            |             | 745,000            |             |            |
| Accounts 90+ days                     | 353,300            | 48.80       | 308,800            | 41.6        | 283,000            |             | 38.0       |
| A/R ratio                             | 3.27               |             | 3.21               |             | 3.25               |             |            |
| YTD gross collection %                | 84.71%             |             | 88.81%             |             | 87.50%             |             |            |
| Adjusted (net) collection %           | 93.75%             |             | 97.03%             |             | 96.00%             |             |            |
| 3. Productivity Summary               |                    |             |                    |             |                    |             |            |
| New patient visits                    | 1,790              |             | 2,030              |             |                    |             |            |
| Patient file transfers                | 860                |             | 940                |             |                    |             |            |
| Physician productivity*               | 302,810/M.D.       |             | 310,804/M.D.       |             | 307,500/M.D.       |             | 1.1        |
| Office visits*                        | 5,174/M.D.         |             | 5,341/M.D.         |             | 5,200/M.D.         |             | 2.7        |
| 4. Staffing Analysis                  |                    |             |                    |             |                    |             |            |
| Non-M.D. FTEs per M.D. FTEs           | 3.80FTEs           |             | 3.75 FTEs          |             | 3.50 FTEs          |             | (7.1)      |
| 5. Financial Summary                  |                    |             |                    |             |                    |             |            |
| Cash                                  |                    |             |                    |             |                    |             |            |
| Checking account                      | 42,128             |             | 18,149             |             |                    |             |            |
| Savings account                       | 93,111             |             | 127,943            |             |                    |             |            |
| Other (short-term investment)         | 107,444            |             | 140,933            |             |                    |             |            |
| Accounts Payable                      |                    |             |                    |             |                    |             |            |
| Current liabilities                   | 61,576             |             | 82,761             |             |                    |             |            |
| Long-term liabilities                 | 185,817            |             | 171,387            |             |                    |             |            |

\*Individual physician data should be available and may be presented on a separate table.

\$150,000 to the practice annually.

- Low-cost, high-margin in-office diagnostics and therapeutics are not being used because the group is unwilling to risk the potential for utilization abuse.

- The turnover of accounts receivable is more than 30 days beyond acceptable standards, resulting in \$250,000 worth of unrecovered capital.

- An analysis of the profitability of additional subspecialization has been avoided because it is threatening to some of the group's members.

- One satellite remains unprofitable because of ineffective marketing, promotion, and management.

- Strategic alliances with hospitals have not been pursued because the group is uncomfortable with the negotiating process.

- The addition of a new physician has been avoided because of the perceived expense and the group's already comparatively low profitability.

These problems contribute to a profile of a group practice that is troubled by its financial and market positions, yet unaware that its problems stem from inadequate management. Often, a group initially will oppose improving its management, believing such changes will reduce the physicians' control of the practice and unnecessarily add to the group's costs. Without better management, the group described above, at best, can expect to maintain the status quo, but its members probably will remain professionally and financially unsatisfied.

The financial implications of the problems highlighted above are substantial. A group practice in this situation can expect to miss out on several hundred thousand dollars annually. These are dollars that, if recovered, could be invested in the group's long-term development or distributed among its members.

### **Critical Self-assessment**

Physicians often ask how they would know if their groups are under-managed. On a personal level, members may feel like they are aboard a runaway train. An objective analysis of the group can compare and measure

the group's performance in such areas as personal income, cost and production, operating ratios, payer mix, and staffing patterns. These comparisons can provide a useful source of self-assessment. With an evaluation of the group's past and present financial, strategic, and market positions, more clearly defined objectives and benchmarks can be put into use, leaving physician shareholders more able to articulate their personal and professional goals in relation to the group and its future.

Surprisingly, few groups of the size cited in the case study routinely provide useful management information to physicians, and even fewer put management information to practical use.

Ongoing self-assessment demands regular progress reports using the benchmarks established by the practice. Information should be provided in a format that allows for ready interpretation without the need for an advanced business degree. The table on page 46 provides an example of a straightforward and useful management report that should be made available to physicians at least quarterly.

At regular board or management committee meetings, management should be required to present the information detailed in the table and provide an interpretation and analysis of any substantive variances to the budget or trends. Implementation of this reporting system demands a prospective view of practice performance and requires an annual budgeting process.

### **Investing in Management**

Having a capable manager on board isn't always enough. Physicians within the group must be willing to participate actively and to invest in the management process. Many physicians choose to avoid regular management and strategic progress reports because they weren't trained to be managers, and they prefer to concern themselves only with the medical aspects of their practices. But medicine is also a business, and, like all businesses, it requires effective management and the involvement of the owners.

Every medical group should have a three-year business plan that clearly states the practice's goals and objectives in measurable terms, projects operating budgets, identifies the capital requirements necessary to achieve those business objectives, and describes the methods to be used to finance the capital application. The marketing plan should reflect the group's tolerance for visibility and promotion and examine possible alliances with hospitals, third-party payers, and other physicians. Because foresight will help position the group for future changes, various scenarios also should be examined, taking into account such issues as the resource-based relative value scale and mandatory Medicare assignment.

The final plan should be reviewed quarterly to see if objectives are being met, and departures from the plan should be examined and understood by all group members. The value of such a plan is not in the written plan itself, but in the process by which it is created.

### **Summary**

As the 1990s unfold, the challenges facing medical group practices are not likely to lessen. Traditional territorial boundaries will be blurred, and significant power shifts between physicians, hospitals, and other health care providers will likely occur. The well-managed group will be positioned to anticipate and react to abrupt changes in the rules and to take advantage of opportunities that typically accompany a dynamic market.

MM

*Daniel Zisner and Davis Fansler are co-founders and principals of Partners Medical Management, Ltd., a Minneapolis-based consulting firm specializing in ambulatory care management and hospital-physician ventures.*

*David Rothschilder is the administrator of the St. Paul Heart Clinic, P.A., and president-elect of the Minnesota Medical Group Management Association.*





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# Preserving Lives, Maintaining Dignity

Richard B. Tompkins, M.D.



"Physician-assisted suicide is not ethically or legally acceptable."

Trust is an important element in the physician-patient relationship. We hope our patients realize that, as physicians, we are pledged to do everything in our power to preserve their lives. When death is inevitable, we will provide for their comfort and maintain their dignity. Recent news articles may have jeopardized our patients' trust in us. In two separate incidents, physicians were accused of hastening the dying process. A casual or too-hasty reading of the news could blur the ethical distinctions between the two very different incidents and leave some of our patients troubled and confused.

In June, Michigan physician Jack Kevorkian helped an Oregon woman with Alzheimer's disease commit suicide by providing her with a "suicide machine." It was widely reported that Kevorkian attached 54-year-old Janet Adkins to a home-made device that allowed her to push a button and release an injection of coma-inducing thiopental followed by lethal potassium chloride. Kevorkian is an outspoken advocate of euthanasia who made his intentions clear on a number of talk shows. There was no therapeutic or analgesic effect from the final drug he provided; Kevorkian intended it to be lethal. Before the injection, death was not imminent, and Janet Adkins was not in physical pain.

While Kevorkian was praised in some circles for entering uncharted ethical territories and drawing attention to an important public policy issue, we must make it clear to our patients that there is a consensus in the medical community: Under no circumstances is active euthanasia ethical or legal. Kevorkian's action put him outside the bounds of professional medical ethics.

Arthur Caplan, director of the

Center for Biomedical Ethics at the University of Minnesota, in a June column in the Minneapolis *Star Tribune*, raised several troubling points regarding Janet Adkins. First, Janet Adkins was not Kevorkian's patient. He had known her only two days. How could he be confident of her decision-making competency, particularly when one symptom of Alzheimer's is loss of judgment? Second, and perhaps even more disturbing, was Caplan's point that the diagnosis might have been questionable. He cited a recent study that found between 25 percent and 40 percent of patients diagnosed as having Alzheimer's did not actually have the disease. Some Alzheimer's symptoms are similar to those of brain tumors, hydrocephalus, stroke, and depression.

But even if Janet Adkins was competent, even if she had a valid reason for wanting to end her life, a physician had no business assisting her suicide. Physician-assisted suicide is not ethically or legally acceptable.

It is crucial to stress the clear dis-

tinction between the Kevorkian case and an incident that happened in the Twin Cities in April. At that time, Hennepin County Attorney Tom Johnson accused five physicians of committing homicide in two separate cases involving chronically ill patients who died while receiving morphine. Both patients were dying of fatal diseases. The physicians did not use morphine to hasten death but only to control pain in one patient and to help relieve the terrifying sense of suffocation that patients feel when they are taken off a respirator in the other. The physicians' actions were consistent with the Hennepin County Medical Society's recently developed guidelines for the control of pain. HCMS's Position Paper on the Management of Pain and Suffering in the Dying Patient (reprinted in the June 1990 issue of *Minnesota Medicine*) represents the accepted view of the local medical community and has been widely disseminated. It states in part that:

- The administration of large quantities of narcotic analgesics is not euthanasia when the purpose is to alleviate pain and suffering, not to shorten the life of the patient.

- There are sufficient ethical, moral, and medical reasons to prescribe morphine and other pain-relieving medications, even at the risk of hastening the patient's death.

- The goal of treatment is to relieve patient suffering to the fullest extent possible. For dying patients, there is no cap dose; high doses may be required for relief of pain and suffering.

- Dying patients who are able to make their own decisions have the right to participate in decisions about the course of their medical treatment

*President's Letter to page 54*



## *People and Places Making Medical News*

### **M M A**

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#### **MMA CEO**

The Minnesota Medical Association announced in July that Paul S. Sanders, M.D., acting interim chief executive officer, has been appointed the MMA's new chief executive officer. Sanders, who will resign as chairman of the MMA Board of Trustees and will leave his family practice in Cambridge, Minnesota, will assume full-time duties September 1. He replaces Steven D. Carter, who resigned May 1.

Besides his position as chairman of the board, Sanders also has served as chairman of the MMA Interspecialty Council and president of the Minnesota Academy of Family Physicians and currently sits on the Board of Directors of the Midwest Medical Insurance Company.

### **P e o p l e**

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#### **AMA Resident Position**

The MMA-sponsored candidate, Howard B. Chodash, M.D., in June was elected to the resident position on the AMA Council on Medical Education at the AMA Annual Meeting in Chicago.

Chodash, a second-year internal medicine resident at the Mayo Graduate School of Medicine, has been active at every level of organized medicine. Currently, he is a member of the MMA House of Delegates, a member of the Legislative Committee of the Zumbro Valley Medical Society, and a delegate to the AMA Resident Physician Section.

#### **High AMA Honor for Lay Person**

The American Medical Association honored Harold W. Brunn with its Citation of a Layman award for distinguished service. It is the AMA's highest honor for non-physicians and recognizes outstanding contributions to the achievements and ideals of American medicine. The presentation was made in June at an awards ceremony during the AMA's Annual Meeting.

Brunn joined the staff of the Minnesota Medical Association in 1952, embarking on more than 30 years of service to physicians and medicine that culminated in 1984, when he retired as executive vice president. He still maintains his 37-year position as secretary-treasurer of the six-state North Central Medical Conference.

#### **HCMC Medical Director**

Michael B. Belzer, M.D., has been named medical director of Hennepin County Medical Center (HCMC) of Minneapolis, succeeding Richard B. Raile, M.D., who retired in March after 25 years in the position.

Belzer has been a member of the HCMC Hematology and Medical Oncology staff since 1980 and was named associate medical director for academic affairs last year. He was appointed to develop and direct HCMC's Office of Academic Affairs in 1986, served as assistant chief of the Internal Medicine Department from 1982 to 1986, and directed the Internal Medicine Residency Program during the same period. Belzer earned his medical degree from the University of Minnesota in 1974.

#### **Young Investigator Award**

Nicole Lurie, M.D., M.S.P.H., received the Young Investigator Award from the Association of

Human Services June 18 in Washington, D.C. Lurie is in the General Internal Medicine Division at Hennepin County Medical Center, Minneapolis, a member of Hennepin Faculty Associates, and an associate professor of medicine and public health at the University of Minnesota.

The Young Investigator Award is given for outstanding contributions to enhancing the understanding of one or more health services issues. Lurie's research includes issues such as the effect of Medicaid regulations on the quality of care and health outcomes of aged and mentally ill patients.

#### **Saint Marys Administrator**

Gary B. Morrison was named administrator of Saint Marys Hospital in Rochester, Minnesota, effective June 29. Morrison succeeds David A. Leonard, who had been Saint Marys' administrator since 1987 and retired after 39 years with the Mayo Foundation.

Morrison was appointed associate administrator at Saint Marys in 1988. Before that, he served as president of Robert Packer Hospital, a 366-bed acute care hospital in Sayre, Pennsylvania.

#### **'U' Medical Oncology Head**

Gordon Dean Ginder, M.D., professor of internal medicine at the University of Iowa College of Medicine, has been named professor and head of medical oncology at the University of Minnesota.

Ginder assumed his duties August 1. He is a 1975 graduate of the Johns Hopkins University School of Medicine and completed his internship and residency at Case Western Reserve University. He did a fellowship in hematology-

oncology at the University of Iowa and has been a member of the faculty at Iowa since 1980.

### AMA V.P.

James S. Todd, M.D., has been selected as the executive vice president designate of the American Medical Association by its Board of Trustees.

Todd has been the AMA's acting executive vice president since February 9, 1990. He left his general surgery practice in Ridgewood, New Jersey, in 1985 to serve as senior deputy executive vice president at the AMA. He was a member of the Board of Trustees from 1980 to 1984 and served as a commissioner to what was then the Joint Commission on Accreditation of Hospitals from 1982 to 1985.

### Places

#### Cigarette Ad Ban

Minnesota Suburban Publications announced in June that it will no longer accept cigarette advertising. "Given the heavy family orientation of the audience we serve, it is only appropriate that we take such action," said Lee Canning, vice president of the 28-community newspaper group.

Last year, the newspaper company carried a number of cigarette advertisements that drew strong negative reactions from its readers.

Minnesota Suburban Publications, owned by Guy Gannett Publishing Company, Portland, Maine, serves 52 communities in and around Minneapolis and St. Paul.

#### Medtronic Merger, Expansion

Fridley, Minnesota-based Medtronic, Inc. and Bio-Medicus announced in July that they have signed a merger agreement. According to the deal, which is expected to be complete in September, Bio-Medicus will become part of Medtronic's cardiopulmonary business.

Bio-Medicus makes centrifugal

blood pumps used in open-heart surgery. Medtronic manufactures cardiovascular and neurological devices.

Medtronic also held groundbreaking ceremonies in June for a Medtronic Technology Center in Japan to provide new research and development, manufacturing, and education capabilities to the company's Asia-Pacific operations. The new Medtronic Japan Technology Center will be located in Chitose, on Hokkaido in northern Japan. Plans include the manufacture of cardiac pacemakers.

#### Infant Monitor Recall

Plymouth, Minnesota-based Aequitron Medical announced in June that it is recalling 21,000 of its Model 9200 and 8200 apnea (sudden infant death syndrome) monitors. The recalled monitors could sound an intermittent alarm instead of a continuous one when an infant stops breathing. The back-up alarm that sounds when a child's heart stops beating, however, has proven reliable.

Aequitron also issued a safety alert at the same time as the recall announcement. Company officials said its apnea monitors could be affected by outside electromagnetic interference, such as that emitted by radio and TV stations, cellular phones, and some computers.

#### Anticancer Drug Trials

The Mayo Comprehensive Cancer Center today announced that the National Cancer Institute (NCI) has awarded two contracts to the Mayo Foundation to conduct early clinical trials of anticancer agents.

The contracts for Phase I and Phase II trials total \$3.1 million and will provide a resource to the NCI for establishing the safety and efficacy of new anticancer agents. These trials are complementary approaches for determining the toxicity and antitumor activity of new therapies in the safest and most efficient manner. Mayo

Foundation is now the only institution holding both Phase I and Phase II contracts.

### Socioeconomics

#### BME Too Lenient?

The Minnesota Board of Medical Examiners (BME) was singled out as "dangerously lenient" toward drug-abusing or malprescribing physicians by the Public Citizen Health Resource Group, a consumer group that studied disciplinary actions against 6,892 physicians in 41 states. Over the past 18 years, a fifth of the BME's disciplinary actions were against repeat offenders, Public Citizen said. The group released its thick report in June. The report, which includes information on 300 Minnesota physicians, criticizes physician discipline nationwide.

#### Plea for National Health Plan

The Minnesota Senior Federation, citing inadequate Medicare coverage and increasing costs to the elderly, in June called for a national health plan. The Minnesota AFL-CIO and the Minnesota Health Care Campaign backed the federation's proposal.

In a report entitled, "Medicare in Crisis," the Senior Federation said that Medicare covers an average of only 40 percent of senior citizen's health care costs, costs for Medicare and "Medigap" insurance are rising, only 25 percent of Minnesota physicians accept Medicare's fee schedule, and in 1988 elderly and disabled Minnesotans paid an average of \$38.10 for each doctor bill. Such hardships for seniors, the federation said, led to its call for a national health plan.

#### Charity Care at Hennepin

Hennepin County Medical Center (HCMC) may end a century-old tradition of categorically providing free care to all who need it. The county board granted preliminary



approval to deny nonemergency services to some people who refuse to fill out paperwork that allows Hennepin County to be reimbursed for the patients' care. Specifically, the plan applies to all men under 64 who are not disabled.

County officials said the measure is designed to control costs, not by denying care to anyone, but by providing a strong incentive to filling out the forms that will provide reimbursement for free care.

### Cocaine-related Deaths

Deaths attributed to cocaine use among women and babies rose to 17 in Hennepin County in 1989 (seven women and 10 babies), up from three in 1988 (all were babies). The number of all Hennepin County cocaine-related deaths jumped 250 percent—from 15 in 1988 to 38 in 1989, according to the semiannual report by the Department of Human Services on metro-area drug abuse. Much of the increase in the county can be attributed to a dramatic increase in cocaine use by black women, according to researcher Carol Falkowski, who compiled the report.

In Ramsey County, cocaine-related deaths dropped from 16 in 1988 to 11 in 1989. No women or children died from cocaine use in 1988 in Ramsey County. In the first four months of 1990, Hennepin County reported eight such deaths, and Ramsey County had none.

The report also said that deaths in Hennepin County involving heroin and other opiates rose dramatically, from four in 1988 to 15 in 1989.

### Slain in the U.S.A.

American young men, especially blacks, are killing each other more than four times more often than their counterparts in 21 other

countries, a study in the June 27 *Journal of the American Medical Association* reported. And three out of four homicides in the United States committed by young men aged 15 through 24 are committed with guns, far outstripping the number of firearm-related murders in other countries, wrote Lois A. Fingerhut, M.A., and Joel C. Kleinman, Ph.D., of the Division of Analysis, National Center for Health Statistics, Hyattsville, Maryland.

Few states had homicide rates for young, white men in 1987 as low as in any other country used for comparison. Only four—Minnesota, Massachusetts, Ohio, and Wisconsin—had murder rates as low as comparison countries.

Overall, young men in the United States kill one another at a rate of 21.9 per 100,000, the study found. The next highest country, Scotland, had a homicide rate of five per 100,000. Japan and Austria posted the lowest homicide statistics among young men: each had fewer than 0.6 murders per 100,000.

In 1987, more than 4,000 young men in the United States were homicide victims. If America reduced its rate to that of the next highest country (Scotland), more than 3,000 lives would be saved, the authors wrote.

### AIDS Funding

The Minnesota AIDS Funding Consortium in June awarded grants totaling \$593,291 to 26 state organizations, many of them with a minority or rural focus. The grants included \$47,102 to Family Services of Greater St. Paul to help change the behavior of high-risk men and youth, \$38,810 to the Minneapolis Urban League for home-based aid for blacks, and \$34,504 to the Minnesota Hispanic AIDS Partnership for bilingual-bicultural case management. The consortium also awarded \$30,000 each for AIDS projects in Rochester and St. Cloud, \$20,000 for a project in Marshall, and smaller

amounts for programs in Duluth, Fergus Falls, and Roseau. The grants were financed by federal monies and locally raised funds.

### Medicare Pays for Pap Smears

Thanks to legislation passed by Congress last year, Medicare will now pay for Pap smears for early cancer detection. Medicare will cover Pap-smear screenings once every three years, or more often if the patient is at high risk of developing cervical cancer. Until now, Medicare paid for Pap smears only in women with gynecological cancer or some other gynecological disorder or abnormality.

## Legal Affairs

### Supreme Court Rulings

The U.S. Supreme Court ruled on two major life issues in June. In one series of decisions, the court declared constitutional state laws that require unmarried girls under age 18 to notify their parents before having an abortion. The court said such laws are constitutional if they require either only one parent to be notified or, if the laws do require both parents to be notified, they must allow permission from a judge as an alternative.

In another decision, the court ruled 5-4 that, in order to discontinue life-sustaining measures for a permanently unconscious person, a family must show "clear and convincing evidence" that the patient would have wanted the measures stopped. In the decision, justices strongly recommended the use of "living wills" to ensure that the patient's wishes are carried out.

### Malpractice Statute of Limitations

Medical malpractice suits must be filed within two years of the termination of the medical treatment in question, the Minnesota Court of Appeals ruled in July. The court reversed an Olmsted County

District judge's ruling that the termination of treatment rule was unconstitutional. The lower court judge denied a motion by the Mayo Foundation to dismiss an August 1989 action by Patrick and Karen Willette, who accused Mayo physicians of failing to diagnose and treat Patrick's colon cancer. The cancer was diagnosed in December 1987.

Mayo attorneys asserted that, under the termination of treatment rule, the two-year statute of limitations had run out in 1985, and the Court of Appeals concurred.

### **Mankato-area Antitrust Suit**

Ninety percent of physicians and all three hospitals in the Mankato area must provide \$450,000 worth of free care to the needy and pay a \$125,000 civil penalty to the state for illegally blocking HMOs from the area, Minnesota Attorney General Hubert Humphrey III announced in June. The attorney general's suit alleges the defendants formed a conspiracy to fix prices and boycott HMOs in order to monopolize the market.

The defendants in the suit are Southern Minnesota Physicians (an organization formed in 1986 composed of 90 percent of the area's 90 physicians), Hospitals of Southern Minnesota, Inc. (also established in 1986 and composed of board members of Immanuel-St. Joseph's Hospital in Mankato, the Watonwan Memorial Hospital in St. James, and the St. Peter Community Hospital and Health Care Center in St. Peter), and the Southern Minnesota Hospital Alliance, which was established by the other two organizations. The suit alleges these three organizations used their combined power to block HMOs from entering the Mankato-area market.

Jerry Crest, administrator of Immanuel-St. Joseph's, stressed the defendants' innocence of antitrust, but said they agreed to pay the fine

rather than face hefty court fees in fighting the suit. He said the hospitals and physicians would not have to change anything in order to provide the \$450,000 of free service in the next five years, because they are providing at least that much free care now.

### **Marijuana Medicine**

Medicine is medicine, but pot is not, Roseau County District Judge Dennis Murphy ruled in June. He convicted Gordon Hanson of Roosevelt, Minnesota, of the joint charges of manufacture and possession of a controlled substance after authorities seized more than 120 marijuana plants growing in his garden in July 1989. Hanson contends he uses the marijuana to lessen the frequency and severity of epileptic seizures. Hanson was given a 366-day prison sentence, but Murphy stayed the sentence and ordered a six-month jail term as a condition of probation.

## **I n n o v a t i o n s**

### **Elixir of Life?**

Human growth hormone can significantly reverse many of the effects of aging, a study in the July 5 *New England Journal of Medicine* found. Daniel Rudman, M.D., of the Medical College of Wisconsin in Milwaukee, and colleagues tested 21 healthy men ranging in age from 61 to 81 and found that, after six months of injections of a genetically engineered version of the body's natural growth hormone, the men lost body fat, gained lean body weight, and developed thicker skin.

The authors cautioned, however, that the treatment is preliminary, long-term effects have not been studied, and the injections are costly. And many symptoms of aging—such as dying brain cells and failing eyesight and hearing—are not affected by the treatment.

Twelve men were treated with the hormone, and nine men comprised the control group. The 12 men given injections shed nearly

15 percent of their body fat and gained about 9 percent in lean body mass. The added lean body mass consisted mostly of muscle, but it is also believed to include stronger vital organs. The men's skin became 7 percent thicker, the level of an important growth-stimulating hormone in the blood returned to pre-age-40 levels, and their vertebrae gained mass. By these measures, the men's bodies were almost 20 years younger after the injection treatment.

Rudman said the results would likely be similar in women. He said that, if the treatment were proven safe and effective by further testing, an average-sized man would have to pay about \$14,000 a year to maintain the hormone's youthful effects. On average, human growth hormone production peaks at about age 30, and by age 60 is at one-fifth its maximum level.

### **AIDS Vaccine**

Large-scale testing of synthetic AIDS vaccines could begin within two years, and an AIDS vaccine could be a reality by the mid-1990s, Dr. Jay Berzofsky of the National Cancer Institute said recently. Berzofsky, addressing the Sixth International Conference on AIDS this June in San Francisco, said the most effective vaccines will most likely be made through DNA technology or genetic engineering.

Also at the conference, researchers led by Dr. Jonas Salk reported that the Salk AIDS vaccine, which is not intended to prevent infection but to ward off AIDS among HIV-infected people, increased immunity in about 60 percent of the 82 people who have received it on an experimental basis thus far. None of the 82 have died up to 2½ years after receiving the vaccine.

### **Fetal Genetic Test**

A simple test that requires only about a tablespoonful of the mother's blood and greatly minimizes the risk of miscarriage and



infection has been developed by physicians at Children's Hospital in Boston. The experimental test analyzes fetal blood cells that have entered the mother's bloodstream via the placenta. Physicians use a polymerase chain reaction to replicate the DNA found in the nucleus of the blood cells, and from the DNA they can determine the baby's gender and discover genetic defects.

The technique may offer an alternative to amniocentesis or chorionic villus sampling, which both carry risks of miscarriage and infection in some cases. The blood test technique can be performed as early as the eighth week.

### Breast Cancer Drug

The Food and Drug Administration in June approved the drug tamoxifen for treating early breast cancer in all cases. Tamoxifen, which helps reduce the risk of cancer recurrence, had been approved for advanced cases.

## Medical Research

### Omitted AIDS Care, Precautions

Twelve of the 18 Minnesota women who tested HIV-positive during a 16-month statewide project did not receive AIDS-related medical care, according to a Minnesota Department of Health report presented in June at the International AIDS Conference in San Francisco. And in a separate study reported at the conference, researchers at St. Paul-Ramsey Medical Center found that emergency room workers often fail to take precautions to avoid HIV infection—even when they know they are being monitored—often because they are too busy.

The blood-test study was anonymous, and authors Richard Danila and colleagues determined that 12 of the 18 women who tested HIV-positive either weren't aware of the infection or hadn't sought care. The research revealed an HIV-infection rate of two per

10,000 pregnant women; some states have a rate up to 35 times higher.

In the emergency room study, Scott Campbell, M.D., and Keith Henry, M.D., found that staff failed to wear protective goggles to guard against splashes 81 percent of the time recommended by guidelines and did not wear rubber gloves 20 percent of the time when their use is recommended. They also found that needles were left uncapped and in a potentially hazardous place about 5 percent of the time.

### Lumpectomy vs. Mastectomy

Lumpectomy followed by radiation treatment is preferable to mastectomy in breast cancer cases where the cancer has not spread to underarm lymph nodes, a panel of experts said in June. The panel, convened by the National Cancer Institute and the National Institutes of Health, said the survival rates of the two surgeries are similar. "We are quite comfortable that there is not an increased survival risk to those who choose breast conservation," said panel chair William Wood, M.D., Harvard Medical School associate professor and Massachusetts General Hospital Cancer Center chief of surgical oncology.

Currently, mastectomies significantly outnumber lumpectomies for early-stage breast cancers.

### Lyme Disease Hereditary Factor

An inherited feature of white blood cells greatly increases a person's susceptibility to Lyme arthritis, according to research presented at the fourth international meeting on Lyme disease in Stockholm. Researchers at Tufts-New England Medical Center in Boston, the Hospital for Joint Diseases in New York, and New York University said that of the 10 percent of Lyme disease patients who develop the disabling arthritis, almost all have the inherited trait.

MM

## President's Letter

From page 49

and the degree of pain relief given.

We must make it clear to our patients that there is a high degree of agreement in the medical community on appropriate ways to manage the pain of terminally ill patients. They have no reason to fear either euthanasia or dying in unbearable pain.

The Minnesota Medical Association responded with outrage to the Hennepin County attorney's charge of homicide and to the fact that he failed to acknowledge the existence of the guidelines promulgated by the medical community. But since that time, we have found that we share more common ground with the county attorney than we expected. On June 20, I participated in a meeting with County Attorney Tom Johnson, Medical Examiner Garry Peterson, M.D., Assistant County Attorney Jim Faber, and MMA Board Chair Paul Sanders, M.D., J. Paul Carlson, M.D., A. Stuart Hanson, M.D., and MMA General Counsel Kristin Larson.

We all agree that we do not want to inhibit appropriate care for patients experiencing chronic pain or for patients who are dying. We all agree about the importance of adequate documentation stating what treatment is being given and why it is being given. In the absence of a clearly written explanation of the reasons why a physician chose a particular course of treatment—e.g., what were the patient's condition and response to previous dosages—outside reviewing parties may reach erroneous conclusions.

It is encouraging to know that the county attorney and medical examiner are motivated by the public good. We plan to continue to meet with members of the legal community to address their concerns and to share ours as well.

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The Minnesota Medical Association wishes to acknowledge the following organizations and thank them for their generous contributions to the 1990 Annual Meeting.

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## *A Calendar of Continuing Medical Education Courses*

*Provided through the MMA Medical Education Subcommittee on CME Resources.* For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; 612/378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

### AUGUST 1990

Aug. 9-10 **Neonatal Resuscitation Program** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Joyce Riedi, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-6923.

Aug. 16-17 **Annual Ob/Gyn Conference** Hennepin County Medical Center; Scanticon Conference Center, Plymouth, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Aug. 16-18 **Practical Surgical Pathology** Mayo Medical Laboratories; Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

Aug. 17-19 **The Way It Was Meant to Be** Children's National Medical Center, George Washington University Medical Center, and the Accreditation Council CME; Washington, DC 20010-2970. CONTACT: Jean Gill, 111 Michigan Avenue NW, Washington, DC; 202/939-5990.

Aug. 20-24 **Team Management of Diabetes Mellitus** International Diabetes Center; International Diabetes Center, Minneapolis, MN. CONTACT: Cindy Poppitz, 5000 West 39th Street, Minneapolis, MN 55416; 612/927-3393.

Aug. 22-Sept. 3 **Turkish Coast & Greek Isles** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116; 612/698-1888.

Aug. 25-Sept. 6 **Midnight Sun Express and Alaska Passage** North Central Medical Conference. CONTACT: North Central Medical Conference, 1845 Hampshire Avenue, Suite 200, St. Paul, MN 55116; 612/698-1888.

Aug. 27-29 **The Physician's Office Laboratory** Mayo Medical Laboratories; Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

### SEPTEMBER 1990

Sept. 6-8 **Teaching Geriatric Medicine in Family Practice** University of Minnesota; Sheraton Midway, St. Paul, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 7 **3rd Annual Clinical Management of Osteoporosis** Hennepin County Medical Center, Hennepin Faculty Associates; location to be announced. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Sept. 7-8 **Mayo Surgical Symposium** Mayo Clinic/Mayo Foundation; Mayo Clinic, Rochester, MN. CONTACT: Rita Kunz, Mayo Medical Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Sept. 10-14 **53rd Annual Course: Radiology 1990, Abdominal Imaging** University of Minnesota; Willey Hall, University of Minnesota, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 13 **Lasers in General Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Sept. 13-14 **Neonatal Resuscitation Program** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Joyce Riedi, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-6923.

Sept. 13-15 **Orthopedic Surgery Course: The Female Athlete** University of Minnesota; Holiday Inn Downtown, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 14 **Pain Management Strategies for Primary Care** Hennepin County Medical Center; Pillsbury Auditorium, HCMC, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Sept. 14-15 **Medical Directors Conference** University of Minnesota; place to be determined. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.



# Health One Medical Education

Aug 9

"SEROLOGY" presented by Charles Horowitz, M.D. - Sioux Valley Hospital, New Ulm, MN, 12:00 noon.

Sept 13

"HIV" presented by John Weiser, M.D., Sioux Valley Hospital, New Ulm, MN, 12:00 noon

Sept 13-15

EMERGENCY MEDICAL SERVICES REGIONAL CONFERENCE - Radisson South - Minneapolis, MN

Oct 3

ETHICAL DILEMMAS IN THE CARE OF THE TERMINALLY ILL" presented by Evelyn Van Allen, Network Coordinator for Minnesota Medical Association and member of Metropolitan-Mount Sinai Ethics Committee - Sioux Valley Hospital, New Ulm, MN, 6:00 p.m. - 8:00 p.m.

Oct 6

THIRD ANNUAL HEALTH ONE PRACTICE OPPORTUNITY FAIR - a complimentary, full day symposium for residents and clinical fellows in multiple specialties - United/Children's Conference Center, St. Paul, MN, 8:30 a.m. to 2:00 p.m.

Oct 6

FOURTEENTH ANNUAL CURRENT TRENDS IN OPHTHALMOLOGY - Hotel Sofitel, Bloomington, MN - Sponsored by Phillips Eye Institute (PEI).

Oct 7-8

ADVANCED PHACOEMULSIFICATION COURSE, Richard Lindstrom, M.D., Chair - Phillips Eye Institute, Center for Teaching and Research

Oct 12

CURRENT CLINICAL CARDIOLOGY CONFERENCE and NINTH ANNUAL JESSE E. EDWARDS, M.D., LECTURE - 8:00 a.m.

For Further information, contact the Medical Education Office, Medical Affairs Division, Health One (612) 574-7895 or call toll-free 1-800-343-DOCS.

**Health One**  
Medical Affairs Division

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Sept. 14-15 **Pediatric Epilepsy: A Primary Care Physician's Perspective** MINCEP Epilepsy Care and Gillette Children's Hospital; Omni Northstar Hotel, Minneapolis, MN. CONTACT: Katherine Glunze, Gillette Children's Hospital, 200 University Avenue East, St. Paul, MN 55101; 612/229-3870.

Sept. 14-15 **Laser Laparoscopic Cholecystectomy** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Sept. 14-15 **Reproductive Medicine** St. Paul-Ramsey Medical Center, Ramsey Clinic, and Ramsey Foundation; Holiday Inn East, St. Paul, MN. CONTACT: CME, St. Paul-Ramsey Medical Center, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Sept. 14-16 **Surgery Medical Clinics for Family Practice** University of Minnesota; Grand View Lodge, Brainerd, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 15 **Pediatric Pulmonology for the Primary Care Practitioner** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Kathy Ingerson, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-5884.

## "Current Trends in Ophthalmology" 14th Annual Phillips Eye Institute Ophthalmology Symposium



Phillips Eye Institute

Richard P. Carroll, M.D., Course Chair

Hotel Sofitel  
Minneapolis, Minnesota

**Saturday, October 6, 1990  
8:00 a.m.-4:30 p.m.**

Guest Faculty

Gary N. Foulks, M.D.

Douglas D. Koch, M.D.

Christine C. Nelson, M.D.

For further information contact  
Mary Strazz, Course Coordinator,  
Phillips Eye Institute (612) 336-5309

**Metropolitan-Mount Sinai  
Medical Center**

A Health One Medical Center

Sept. 19-21 **Infertility: Advancements in Laboratory & Clinical Procedures** Mayo Medical Laboratories; Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

Sept. 21-22 **Tumor Immunobiology in Head and Neck Cancer** University of Minnesota; Radisson University Hotel, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

## OCTOBER 1990

Oct. 3 **Annual A. B. Baker Dinner Lecture** Hennepin County Medical Center, Hennepin Faculty Associates; Marriott City Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Oct. 3-6 **53rd Annual Course: Principles of Colon and Rectal Surgery** University of Minnesota; Mayo Memorial Auditorium, University of Minnesota, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Oct. 4-5 **Annual Forensic Science Seminar** Hennepin County

Medical Center, Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Oct. 5 **Current Management of Low Back Pain** Abbott Northwestern Hospital; World Trade Conference Center, St. Paul, MN. CONTACT: Cathy Elmstrom, CME Office 14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Oct. 5-6 **Lipid Program: Clinical Perspective on Blood Lipids** Hennepin County Medical Center; Hyatt Regency Hotel, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Oct. 6 **3rd Annual Current Topics in Laboratory Medicine: Phlebotomy** Mayo Medical Laboratories; St. Luke's Hospital, Kansas City, MO. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

Oct. 6 **Current Trends in Ophthalmology** Metropolitan Mount Sinai Medical Center; Hotel Sofitel, Minneapolis, MN. CONTACT: Mary Strazz, Course Coordinator, Phillips Eye Institute; 612/336-5309.

## Continuing Medical Education

### Fall-Spring Conference Schedule

Mark your calendar now for these upcoming conferences:

#### 1990

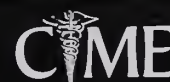
- September 14-15 Reproductive Medicine, St. Paul
- September 28 Parenting, St. Paul
- October 4-5 Pediatric Update, St. Paul
- October 12 Brain, Behavior & Biology: The Interface, St. Paul
- October 25-26 Trauma, St. Paul
- November 2 Environmental Issues in Primary Care, St. Paul
- November 15-17 Clinical Strategies in Primary Care Medicine, St. Paul
- December 6-8 Annual Cardiopulmonary Medicine Update, St. Paul

#### 1991

- February 15 Burn Care Update, St. Paul
- March 1 Bioethics Conference, St. Paul
- March 7-8 Critical Care Conference, St. Paul
- March 12-13 Pediatric Advanced Life Support (PALS), St. Paul
- March 14-15 Family Practice Update, St. Paul
- March 23 Occupational Medicine, St. Paul
- April 4-5 Ob/Gyn Update, St. Paul
- April 5 ENT Update, St. Paul

#### Information and Registration

Continuing Medical Education, St. Paul-Ramsey Medical Center  
640 Jackson Street, St. Paul, MN 55101 • Phone (612) 221-3992



640 Jackson Street  
St. Paul, MN 55101  
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**RAMSEY**



## Physician Opportunities and Miscellaneous Listings

*Classified rates are 50¢ a word. Minimum monthly charge is \$10; with box number \$2 additional. Ads will not be accepted by phone.*

- Placement of ads must be made six weeks prior to the date of publication (i.e., August 15 for October ad). Please send ad requests to *Minnesota Medicine*, 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414.
- The publisher reserves the right to decline or withdraw advertisements. The publisher is not responsible for clerical or typographical errors and is not permitted to divulge the identity of advertisers who have replies sent to box numbers.
- Cancellation of ads must be made by the first of the month preceding month of issue.

**Twenty-nine Physician Multispecialty Clinic** located in desirable east-central Wisconsin location is seeking board-certified or board-qualified orthopedic surgeon to round out its services. Lab, X-ray, excellent hospital. Liberal guarantee and benefits. If interested, contact: D.F. Sweet, M.D., Fond du Lac Clinic, S.C., 80 Sheboygan Street, Fond du Lac, WI 54935. (R)

**Family Physician/Emergency Room:** Full-time salary working weekends, primarily emergency room. Flexibility available. Falls Medical Center, PA, 105 Shorewood Drive, International Falls, MN 56649. Please contact: A. Johnson, M.D., or A. Marc Gorden, M.D., at 218/283-9431 for more information. (R)

**Family Physician** wanted to join four physicians, one nurse practitioner, FP group practicing in two offices in Pine River and Pequot Lakes. Competitive salary. No ob. No HMOs. Rural area with outdoor recreational opportunities. Rotate hospital visits, emergency call; adequate free time. Call or write: C.R. Pelzl, M.D., Pine and Lakes Clinics, PO Box 88, Pine River, MN 56474; 218/587-4416. (R)

**Physician: GP/FP/EM** seeks locations to cover on weekends as locum tenens. Board-certified. FP. Lic. Minn. Write: Box 35132, Minneapolis, MN 55436. (R)

**Family Physician:** Dynamic 13-physician, three-office, single-specialty practice in northwest Minneapolis suburbs seeking additional associate, BE/BC; ob available. Competitive salary, full benefits, reasonable call and hospital rounds schedule. Contact: Dr. Ken Kephart, Northwest Family Physicians; 612/476-6776. (\*R)

**Wausau Medical Center** is seeking BE/BC individuals in the following specialties: cardiology, dermatology, family practice, infectious disease, obstetrics/gynecology, pediatrics, and rheumatology. Modern clinic facility located across the street

from modern, 300-bed hospital. Full partnership in three years. Easy access to lakes, woods, and mountains. Write (including CV) to: D.K. Aughenbaugh, M.D., Medical Director, Wausau Medical Center, 2727 Plaza Drive, Wausau, WI 55401. (R)

**Johnson & Falls Search Associates** represents new practice opportunities locally and nationally. Working exclusively in the area of physician search, we are committed to expanding your professional options while meeting our clients' needs. There are no fees to candidates. For a thorough, confidential search, send CV or call: Liz Johnson or Pat Falls, Johnson & Falls Search Associates, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0237. (R)

**Bemidji, Minnesota:** Excellent opportunities for well-trained physicians. We are seeking board-certified/board-eligible physicians in orthopedic surgery, family practice, ophthalmology, pediatrics, and otolaryngology to join a young 24-physician multispecialty group practice located in northern Minnesota. Competitive salary guarantee plus incentive first year and excellent benefits. An excellent opportunity for a physician to enjoy practice in the center of hunting, fishing, and clear air. Please respond with CV to: C.C. Lowery, Administrator, Bemidji Clinic-MeritCare, 1233 34th Street NW, Bemidji, MN 56601; 218/751-1280. (R)

**Outstanding Opportunity for a BE/BC Family Physician** to join a progressive medical community with eight physicians oriented to family practice. Details will be given by contacting: Dr. Tim Schmitt, Wadena Medical Center; 218/631-1360, or Jim Lawson, Administrator, Tri-County Hospital, Wadena, MN 56482; 218/631-3510. (R)

**Waseca, Minnesota:** Family practice physician to join four family practitioners. Population 8,000. One hour south of Burnsville Center; lakes; industry. Salary negotiable. Clinic-adjacent hospital. Ample free time to enjoy family life. Contact: James W. Dey, M.D., or Ruth Hawker, 501 North State Street, Waseca, MN 56093; 507/835-3110. (R)

**Exciting Pediatric Opportunity:** Full or part time. East-metro practice offering stimulating combination of primary care, teaching, and consultative services. Excellent salary and benefits. Inquiries to: Ruth at 612/777-8211. (R)

**Locum Tenens** physicians needed. Physicians and locations coordinating services. Write to: Margaret Carse, MED Professional Resource Search, PO Box 35215, Minneapolis, MN 55435. (10/89-R)

**Wholesale Life Insurance**—No front load and no surrender charge. Example: 35-year-old ns male, \$500,000. First-year premium—\$2,000. First-year guaranteed cash value—\$1,720.

Offered by Ameritas Life Insurance Corp., a hundred-year-old Best's rated A+ (superior) company. For further information contact: Greybull Insurance Services, 1313 5th Street SE, Minneapolis, MN 55414; 612/379-3860. (\*10/89-R)

**St. Cloud**—Minnesota's fastest growing city—family practice physician, two pediatricians, two ob/gyns, BE/BC to join supportive primary care staff in a growing, successful, and innovative prepaid practice. New clinic facility. Full range of fringe benefits (competitive salary, liberal vacation, two weeks' education leave, retirement fund, etc.). Contact: Physician Services, Central Minnesota Group Health Plan, 1245 15th Street North, St. Cloud, MN 56303; 612/253-5220. An equal opportunity employer. (R)

**Family Physician or Internist:** Busy family practice/industrial practice located on the beautiful North Shore of Lake Superior. Outdoor activities abound: hiking, skiing—xc and downhill—fishing, etc. Two-physician practice is looking for a third physician for a rewarding practicing. VA nursing home is a near future reality. Contact: Jon Ward, Manager, Silver Bay Clinic, Ltd., Silver Bay, MN 55614; 218/226-4431. (12/89-R)

**Radiologist:** A three-physician radiology group is seeking a fourth radiologist with experience and interest in interventional radiology. Dickinson County Hospitals is a progressive, 126-bed, two-hospital system located in Iron Mountain, Michigan's Upper Peninsula. We have a service-area population of over

45,000. Contact and/or send resume to: Drs. Specht/Shampo/Manzano, Radiology Department, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4565. 2-9/90

**Family Practice:** Physicians seeking a BE/BC family practice physician for the Norway, Michigan, service area. The physician would have the option of joining one of the existing practices and/or setting up his/her own practice. Anderson Memorial Hospital is a part of Dickinson County Hospitals and has a service-area population of over 45,000. Contact: Dr. Paul Hayes, Anderson Memorial Hospital, Main Street, Norway, MI 49870; 906/563-9243, or office 906/563-9255. 2-9/90

**Mankato:** FP partner to join four board-certified family physicians, ages 31-41, in fast-growing, full-range practice, includes ob. Population 40,000+. Seventy miles to Twin Cities. Four colleges nearby. 90+ physicians on hospital staff. Academic appointment available. Call: Tony Giefer, M.D. 507/387-8231. (1/90-R)

**Family Practice—Hospital-Sponsored Clinic Opportunity:** Dynamic growth-oriented hospital in beautiful north-central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar

## Mankato Clinic, Ltd.

501 Holly Lane  
Mankato, MN 56001

42-doctor multispecialty group practice in south-central MN with trade area pop. of 150,000. Guaranteed salary 1st year. Incentive thereafter with full range of benefits. Liberal time off.

Seeking BE/BC physicians:

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- Pulmonology
- Obstetrics/Gynecology
- Oncology/Hematology
- Invasive Cardiology
- Family Practice
- Surgery-Vascular Fellowship
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Roger Greenwald, Administrator or  
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opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus, and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435; 612/835-5123. (R)

**Urgent Care/Primary Care** physicians for over 90 group positions in metropolitan Phoenix/Tucson, Arizona. Excellent compensation/partnership opportunities. Other quality positions nationwide. Send CV or call: Mitch Young (MM), PO Box 1804, Scottsdale, AZ 85252; 602/990-8080.

(\*1/90-R)

**BE/BC Family Practice and Internal Medicine Physician:** Excellent opportunity to join well-established, progressive 20-physician multispecialty group located in an economically sound community of 20,000 (drawing area of 30,000), 65 miles south of the Twin Cities. Full membership after one year. Competitive salary and fringe benefit package. Contact: Ed Durst, M.D., or Terry Tone, Administrator, 134 Southview, Owatonna, MN 55060; 507/451-1120. (2/90-R)

**Orthopedic Surgeon:** A progressive, 126-bed, two-hospital system is seeking an orthopedic surgeon to join an established practice in the Iron Mountain area of Michigan's Upper Peninsula. Must be BE/BC. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Dr. Roberts will guarantee

\$250,000 plus malpractice insurance, office space, CME, vacation, and relocation expenses. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4500. \*2-8/90

**Family Physicians:** Well-established south suburban Minneapolis family practice group seeks associates part/full time to staff day clinic. Excellent call schedule, salary, and fringe benefits. Also seeking locum tenens to staff PT/FT Urgent Care Centers and/or day clinic. Contact: Administration, Family Physicians, P.A., 612/435-4125, or send inquiries to Suite 100, 14050 Nicollet Avenue South, Burnsville, MN 55337.

(\*9/89-R)

**Dermatologist, Psychiatrist, Allergist, Internal Medicine, Family Practice:** A progressive, 126-bed, two-hospital system is seeking the above specialties to establish practices in the Iron Mountain area of Michigan's Upper Peninsula. Must be BE/BC. Located 100 miles north of Green Bay, Wisconsin. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Diagnostic capabilities include a CT scanner, CO<sub>2</sub> laser, and a fully staffed special diagnostic department. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4500.

\*2-8/90

**Positions Available in Family Practice, Internal Medicine, Obstetrics/Gynecology, General Surgery, and Pediatrics:** 28-physician multispecialty clinic seeking additional physicians in FP, IM, Ob/Gyn, GS, and Peds departments. Interstate Medical Center offers a competitive salary, comprehensive benefits, and the support and team approach of a multispecialty environment. Red Wing is a midsized community along the bluffs of the Mississippi River only 40 miles from the Minneapolis/St. Paul area. Area highlights include an excellent school system, a growing cultural environment, water recreation, skiing, and an active business climate. Red Wing has all the benefits of a metro area in a serene setting. For additional information, please call or send CV to: Don Bruns, M.D., Highway 61 West, Red Wing, MN 55066; 612/388-3503.

\*3-8/90

**Internist** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809.

(\*3/90-R)

**Family Practitioner** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809.

(\*3/90-R)

**Family Practice, Internal Medicine, Pediatrics, Urology, Obstetrics and Gynecology, Dermatology, and Orthopedics** practice opportunities available at the Faribault Clinic. The Faribault Clinic is a multispecialty group practice of 14 physicians. Faribault is located 50 miles south of Minneapolis on I-35.

For more information contact: Ray W. Wood, M.D., or Ken Smith, Administrator, 924 NE 1st Street, Faribault, MN 55021; 507/334-3921. (4/90-R)

**Forest Lake Doctor's Clinic** is seeking a BC/BE family physician, pediatrician, ob/gyn, and internist to join 10-physician multispecialty group. Located 25 miles north of Minneapolis-St. Paul, in progressive community, with excellent schools, many beautiful lakes, recreational activities, golf, fishing, boating, skiing. Local hospital directly across street. Contact: Dr. Harvey J. Frank or Dr. Doug Sill, 121 SE 11th Avenue, Forest Lake, MN 55025; 612/464-7100. (4/90-R)

**Family Physician:** Tired of call? Want predictable hours? Full-time physician needed to work three days per week in our outpatient family practice clinics. Salary plus bonus and benefits including malpractice insurance. Contact: Todd Patton, M.D., or William Wenmark, CEO, c/o NOW Care Medical Centers, 13031 Ridgedale Drive, Minneapolis, MN 55343; 612/593-9010 (5/90-R)

**Family Practice:** Marshfield Clinic, a multispecialty group practice with nearly 350 physicians, is seeking a seventh BE/BC family practitioner for one of its expanding (12-physician) regional centers in northwestern Wisconsin; within approximately two hours of Minneapolis/St. Paul and/or Lake Superior. The ability to perform cesarean sections is a prerequisite for this position. Construction of a new \$2 million clinic is scheduled for mid-1990. Position offers an excellent professional environment combined with an exceptional blend of recreational, cultural, and educational opportunities. No start-up expense. Salary negotiable (\$90,000+), with outstanding fringe benefit package (includes clinic self-insured malpractice). Opportunity to practice broad spectrum family practice with on-site access to a variety of consultants and time to enjoy family and recreation. Send CV and references to: David L. Draves, Director Regional Development, 1000 North Oak Avenue, Marshfield, WI 54449 or call collect at 715/387-5376. \*1-8/90

**Pediatrician:** 115-physician multispecialty clinic in the Fox River Valley of northeastern Wisconsin desires a BC/BE pediatrician to join department of 17 BC/BE pediatricians. Two-year guarantee plus comprehensive benefit package offered. The community offers a superb recreational, cultural, and family environment in which to practice. For information please call or write: Roger Rathert, M.D., La Salle Clinic, 411 Lincoln Street, Neenah, WI 54956; 414/727-2702. 2-9/90

**Family Practice:** Immediate opportunity for a family practitioner in southwestern Minnesota. Excellent first-year salary benefits package. Contact Gregory Campbell, Assistant Administrator, 1207 6th Avenue South, St. James, MN 56081; 507/375-3261. 3-8/90

**Family Practice:** Excellent salaried practice opportunity for BC/BE family physician with Northland Medical Associates of Morgan Park. The community, located in the western end of Duluth, offers outstanding quality of life: desirable family

environment, excellent educational institutions, renowned trout streams, skiing, hunting, boating, and dog sledding. Full-time and part-time positions open; flexible scheduling potential. Excellent compensation package, production incentive, if desired. Send CV to: Susan Streitz, Northland Medical Associates of Morgan Park, 1150 88th Avenue West, Duluth, MN 55808. Or call collect: 218/626-2775. \*3-8/90

**Board Certified/Board Eligible Ob/Gyn** to join existing two-person practice at the 24-physician multispecialty Winona Clinic, Ltd., in Winona, Minnesota. Located in the beautiful Mississippi River Valley of southeastern Minnesota. The community, with a 40,000 population trade area, is the host of three colleges and a diverse industrial base. Send CV to: J. B. Knuesel, Administrator, Winona Clinic, Ltd., 420 East Sarnia, Winona, MN 55987. 3-8/90

**Pediatrician** to join existing two-person practice at the 24-physician multispecialty Winona Clinic, Ltd., in Winona, Minnesota. Located in the beautiful Mississippi River Valley of southeastern Minnesota. The community, with a 40,000 population trade area, is the host of three colleges and a diverse industrial base. Send CV to: J. B. Knuesel, Administrator, Winona Clinic, Ltd., 420 East Sarnia, Winona, MN 55987. 3-8/90

**Emergency Medicine:** Compensation package over \$110,000 per year. Career opportunities in emergency medicine with company providing emergency physician services to 14 hos-



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The Worthington Medical Center is a 17 member multispecialty group practicing in Worthington, Minnesota. The clinic provides primary and secondary care for a large portion of Southwestern Minnesota and Northwestern Iowa. Practice opportunities exist for board certified/eligible physicians in the Worthington office.

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John Sieve, Administrator  
Worthington Medical Center, P.A.  
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Worthington, MN 56187  
Phone: 507-372-2921



pitals in Iowa. Physicians work as independent contractors, with a guaranteed hourly compensation, excellent benefit package, and paid malpractice insurance. Physicians must be certified in ACLS and have pertinent experience in emergency medicine. Part-time positions also available. Please contact: Lowell Sisson, Emergency Practice Associates, PO Box 1260, Waterloo, IA 50704, or call 1-800/458-5003. 3-8/90

**Sanibel Island for Rent:** 2 BR condo, by day or week, on beautiful Sanibel Island, Florida. Home of famous wildlife refuge. Swim, shell, or just relax. Extensive bike paths, two Island golf courses. \$445 per week through 12/15/90, then \$775 per week through season. Call Toni, 612/869-1404. 7-12/90

**Downtown Office Space for Rent:** Physician in the Medical Arts Building, 825, wishes to sublet to another physician on a part-time basis for the purpose of sharing overhead expenses. Call: 612/370-0553. (6/90-R)

**Time for Living:** Time for family, children, traveling, hobbies, sports, hiking, music, boating, art, skiing, community activity. Madison Ambulatory Care Center: outpatient family practice, occupational health. Approximately 25 hours per week, very flexible scheduling. Salary \$30,000 plus paid health, life, malpractice, 401K (total package worth in excess of \$40,000). Contact: David Goodman, M.D., MedEast, 2810 East Washington Avenue, Madison, WI 54704; 608/244-1213. (6/90-R)

**Mankato Clinic, Ltd.** is seeking BE/BC physicians in the following specialties: dermatology, invasive cardiology, ob/gyn, oncology/hematology, pulmonary medicine, vascular surgery, family practice, pediatrics, and general internal medicine. The Mankato Clinic is a 43-doctor multispecialty group practice in south-central Minnesota with a trade area population of +200,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information call: Roger Greenwald, Administrator, or Dr. B. C. McGregor, 507/625-1811, or write: 501 Holly Lane, Mankato, MN 56001. (6/90-R)

**Ob/Gyn, Family Practice, Internal Medicine, Urgent Care:** Opportunities available for BC/BE physicians to join independent, multispecialty group with 10 clinics in the Minneapolis/St. Paul metropolitan area. Fee-for-service and prepaid patients, highly competitive earnings, excellent benefit package. Reply: Nancy Borgstrom, Aspen Medical Group, 1020 Bandana Boulevard West, St. Paul, MN 55108; 612/641-7185. \*2-9/90

**Urgent Care/Family Physician:** Riverside Medical Center is seeking a family practice-oriented urgent care physician for 30 to 40 hours per week. The candidate should be board certified in family practice or emergency medicine. Work flexible hours in an interesting but low-key environment with an experienced professional staff. Enjoy an outstanding salary and benefit package that includes standard benefits plus paid CME time and stipend, society dues, and malpractice

## ST. CLOUD MEDICAL GROUP, P.A.

St. Cloud Medical Group, a 22 physician Multi-specialty Group, is now recruiting BC/BE physicians in the following specialties:

- Occupational Medicine
- Pediatrics
- Family Practice

Guaranteed first year salary. Production program thereafter with a full fringe benefit package.

If interested in joining a progressive Medical Group in Central Minnesota, call or send C.V. to:

Daryl G. Mathews  
Administrator  
St. Cloud Medical Group  
1301 W. St. Germain Street  
St. Cloud, MN 56301  
612-251-8181

## CHISAGO HEALTH SERVICES

Our integrated, multispecialty, 18-member medical practice has positions available for BE/BC physicians in the areas of:

- Family Practice
- Obstetrics/Gynecology
- Internal Medicine
- Urgent Care

This is your opportunity to join a progressive, growing medical team located in a land of lakes only 35 minutes from Minneapolis and St. Paul.

Contact: **Scott Wordelman, President**  
**Chisago Health Services**  
**11685 Lake Blvd., N.**  
**Chisago City, MN 55013**



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**612/257-8485**

insurance. Please contact: James Thompson, M.D., Medical Director, Emergency Department, Riverside Medical Center, 2450 Riverside Avenue South, Minneapolis, MN 55454; 612/371-6464. 2-8/90

**Wanted: A General Surgeon** willing to relocate and join a practice in a smaller, congenial, western Wisconsin community. Currently there are six family practice physicians and one surgeon serving a progressive hospital with a service area of about 9,000. Call: Professional Careers; 612/796-6220. 2-8/90

**Wanted: General Internist and Orthopedic Surgeon:** Very attractive benefits/salary compensation. Enjoy hunting, fishing, skiing, boating, or golf in an attractive tourist community of South Dakota. Call: Professional Careers; 612/796-6220. 2-8/90

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**Internist** with/without subspecialty interests, BC/BE to join 19-physician multispecialty group with five internists. Southeast Missouri rural city of 17,500. No PPO, HMO. Low taxes. Contact Administrator, Ferguson Medical Group, 1012 North Main Street, Sikeston, MO 63801; 314/471-0330. 3-10/90

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# *Ramsey Clinic*

age. Contact: Steve Duncan, Administrator, Fairmont Medical Clinic, PO Box 800, Fairmont, MN 56031-0800; 507/238-4263. 6-1/91

**Family Physician:** Part-time positions staffing convenience care medical center. Competitive hourly salary plus malpractice insurance. Call or write: Bob Kantor, M.D., Grove Square Convenience Care, 13800 83rd Way, Maple Grove, MN 55369; home: 612/591-0437, work: 612/420-4279. 14-9/91

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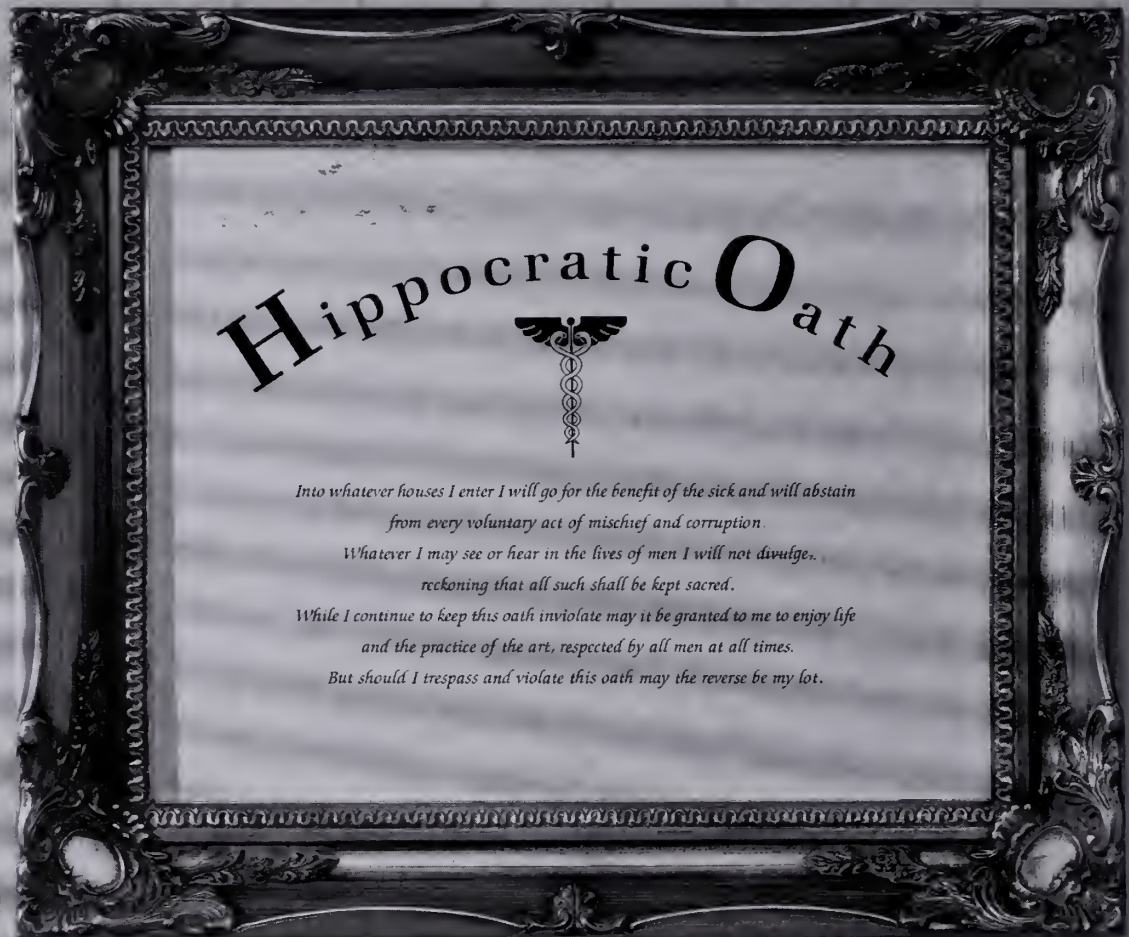
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## COVER

**Physicians Assistants** This month's feature story explores physician assistants' (PAs') role in health care, how that role is evolving, and how members of this 25-year-old profession interact with physicians.

Cover photo of Herbert Ward, M.D., and PA Bonnie White-Marsh taken at the Veterans Administration Medical Center in Minneapolis by Rob Levine of Minneapolis.

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1. Brantly ML, Paul LD, Miller BH, et al: Clinical features and history of the destructive lung disease associated with alpha-1-antitrypsin deficiency of adults with pulmonary symptoms. *Am Rev Respir Dis* 1988;138:327-336.

2. Wewers MD, Casolaro MA, Sellers SE, et al: Replacement therapy for alpha<sub>1</sub>-antitrypsin deficiency associated with emphysema. *N Engl J Med* 1987;316:1055-1062.

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# Is There Life After Health Promotion?

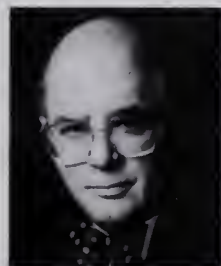
## *An Employee's Interview with Dr. No-It-All, a Company Physician*

Richard L. Reece, M.D.

"At Hewitt, employees receive \$50 for wearing safety belts, \$50 for not smoking, and \$50 for submitting to a battery of screenings. . . .

The bottom line is: As health care costs become more important to the financial solvency of a corporation, health care has to be managed."

"Firms Urge the Wellness Habit"  
The Boston Globe, July 16, 1990



"The temptations of the here and now often overwhelm the rewards of the there and then."

In this age of health promotion and wellness awareness, everybody knows an ounce of prevention beats a pound of cure. Everybody knows an ounce of exercise tops a pound of rest. And everybody knows denial of anything caloric, caffeinated, intoxicating, mood-altering, cholesterol-laden, or fattening will prolong and enhance life.

But the temptations of the here and now often overwhelm the rewards of the there and then. Not everybody, in short, practices what one knows. The late Alfred Damon Runyon knew this. Runyon, creator of "Guys and Dolls," wrote a newspaper column in 1945 called "No Life." The column, recently reproduced in the book, *Pundits, Poets, & Wits* (Oxford University Press, 1990), featured a conversation between a coffee-drinking patient and his doctor. In the exchange, Runyon highlighted the downside of denial. My hunch is that Runyon, who died at 62, preferred simple pleasures over draconian discipline. I've updated Runyon's piece and placed it in the context of a modern corporation, converting the patient into an employee and the physician into a company doctor.

Employee: Dr. No-It-All, is it true you no everything there is to no about health promotion?

Doctor: I've been told I no everything.

Employee: How can I manage my health to keep my job, Doctor?

Doctor: Well, to start with, you have to be careful how you drive, eat, drink, diet, and handle stress.

Employee: All right, Doctor. Careful is the word from now on.

Doctor: Wait a minute, before I forget: no alcohol.

Employee: No alcohol, Doctor? But I always have wine before dinner. And even an occasional belt on special occasions, like weddings of my friends and funerals of my enemies.

Doctor: No, no alcohol. As for belts, only seat belts. Which reminds me, don't get bagged. Use only air bags.

Employee: What about nonalcoholic beer?

Doctor: No nonalcoholic beer. Contains preservatives. No preservatives, which rules out all refined foods—white bread and anything else white—and most snacks, too.

Employee: What about juices? Can't I have grapefruit juice for breakfast?

Doctor: No grapefruit juice. Too acidic.

Employee: But how am I going to eat breakfast without grapefruit juice?

Doctor: Eat cereal. Have oat bran.

Employee: But I don't like cereals. Hate oat bran, too. Can't stand it. Can't sit, either. Gives me the runs.

Doctor: For breakfast, no syrup, either.

Employee: Not even sorghum on my wheatcakes?

Doctor: No sorghum. No wheatcakes. No bacon. No eggs. Come to think of it, no fat, no protein, and no simple carbohydrates.

Employee: Simple carbohydrates?

Doctor: Yes, sugar and starch and everything nice.

Employee: You mean no sugar with my coffee?

Doctor: No sugar. No coffee, either.

Employee: Come on, now. No sugar. No coffee. Sanka?

Doctor: No sugar. No coffee. No Sanka.

Employee: You've got to be kidding. Not even a couple cups of coffee a day?

Doctor: No kidding. None. Zilch. Zero.

Employee: Doctor, you're not human. Taking away coffee from an



adult is like taking candy from a baby.

Doctor: No candy. No ice cream. No sweets of any kind.

Employee: Not even banana ice cream?

Doctor: No bananas, not in ice cream. No sweets.

Employee: Not even cake? Can't I have cake?

Doctor: You can have cake, but you can't eat it, too.

Employee: But how can I enjoy my meals—no drink before, no dessert after. I know, I'll smoke!

Doctor: No smoking. From now on, you're smoke-free.

Employee: But I have to have something. What about sugar-free cinnamon toast?

Doctor: Cinnamon is a spice. No spices. No highly seasoned food. No salt or pepper.

Employee: But I need to do something after dinner.

Table

*Popularity of company health programs*

**Percent of companies surveyed nationwide that offered these programs (N=976)**

|                                |     |
|--------------------------------|-----|
| Health risk assessments        | 22% |
| Nutrition education            | 35% |
| Stress management              | 44% |
| Weight control                 | 48% |
| Smoking cessation              | 63% |
| On-site exercise facilities    | 26% |
| Incentives to join health club | 28% |
| On-site exercise classes       | 36% |

Source: Hewitt Associates, *The Boston Globe*, July 16, 1990.

Doctor: Fine. Do something. Exercise. Run. Walk. Chase your spouse. Exercise is the spice of life.

Employee: TV? Surely I can watch TV.

Doctor: No TV. Only exercise videos, if you must.

Employee: Doctor, you're getting me upset.

Doctor: Don't get upset. It's not allowed. Remember, no stress.

Employee: What's this list you're handing me, Doctor?

Doctor: It's your no diet. Follow it closely.

Employee: But there isn't anything on this diet I ordinarily eat. Are you sure about the coffee, Doctor? Maybe even a few cubes of sugar? I can do without protein, fats, salt, and sweets, but coffee I can't do without.

Doctor: Try nuts, fruits, and berries. If you're going to work here, I want you to reduce your risk, your weight, and your stress. Otherwise eat, drink, and be buried. Diet or die or be fired, I always say.

Employee: Why not? You might as well be dead, anyway. MM



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## Exploring Alternative Healing Methods

Thank you for publishing in the June 1990 *Minnesota Medicine* the article on alternative types of medical therapies ("Patients Who Seek Unorthodox Medical Treatment"). The continued exploration and discussion of multiple avenues of healing I hope will be beneficial to physicians as their patients become more aware of the many available choices.

It is interesting and sad that you frequently quoted William Jarvis (who is not a physician) as an authority on medical quackery; yet you did not interview any experts in alternative medicine. The American Holistic Medical Association, now in its 13th year, is a thriving, active medical organization for physicians interested in alternative therapies. We continue to explore and learn about possible avenues of healing, and we also continue to believe strongly that allopathic medicine is the best form of therapy for a wide variety of problems and diseases. It is probable that different types of healing work best for different types of problems and for different types of people.

I believe we physicians may have a slight case of hubris when we assume that people who use acupuncture, biofeedback, meditation, homeopathy, podiatry, chiropractic, therapeutic touch, massage, dietary supplements, visualization, herbal medicine, and other such modalities do not know what they are doing or why they are doing it. I have seen thousands of such people over the past 12 years, and I can assure you, they are very normal people who have great respect for physicians. Over 90 percent of these people have



already tried unsuccessfully a number of allopathic healing modalities such as various medications or surgery. Their results with alternative methods of healing are often astounding and exciting.

That is why I continue to be amazed and saddened that we physicians are hesitant to learn more about alternative types of medical therapies. Every physician I know has as his or her primary goals to help people be healthier, have less pain and disease, and feel better. Maybe it is time we all begin to work collaboratively with many types of healers. That would allow for more controlled studies and scientific evaluation of these multiple healing modalities.

Because we allopaths have such powerful healing modalities does not mean we need not or cannot be open to other practitioners and other healing methods. As I stated recently in an article stimulated by the exciting changes in Eastern Europe, "Maybe it is time that people all over the world abandon the dualistic positions of the past. We need a paradigm shift to where our actions are based on the belief

that all humans are connected and that everyone counts. As physicians, we all need it. As humans on a planet being stretched to its limits, we require it."

William D. Manahan, M.D.  
President  
American Holistic Medical  
Association  
Mankato, Minnesota

## Olmsted Medical Group's Beginnings

Recently, *Minnesota Medicine* published an interview with G. Richard Geier, M.D., chief executive officer of the Olmsted Medical and Surgical Group in Rochester, Minnesota (*Minnesota Medicine*, May 1990). My letter is a follow-up to fill in some of the gaps about the Olmsted Medical and Surgical Group (OMSG).

At the inception of OMSG, there were two physicians, Drs. James Doyle and Harold Wentz. In August 1954, I joined the group from my solo practice in Litchfield, Minnesota. All three physicians became equal partners professionally and economically.

By early 1955, the Olmsted Community Hospital (with 55 beds and 15 bassinets) opened following a \$750,000 bond issue by the county commissioners to build the hospital. This opened the way for private practitioners to deliver their obstetric patients in the community hospital and do minor and major surgery within the community hospital setting. Within 10 years, the bond issue was paid for by the hospital without taxpayer support.

Within five years, OMSG remodeled and enlarged its building at least five times. The three-doctor partnership increased to at least 10 physicians during that period. The hospital was beginning



to average about 300 major surgical procedures and 600 minor surgical procedures per year. The group acquired Mayo Clinic-trained obstetricians, pediatricians, and internists, as well as a general surgeon, an ophthalmologist, and other specialists. I estimate that there was at least one physician per 50 people in the Rochester and Olmsted County area at that time.

Astonishingly, the Olmsted Medical and Surgical Group now has almost 60 practicing doctors and is continuing to grow and establish satellites to support the many smaller communities around Rochester.

The synergistic and complementary relationship between OMSG and the Mayo Clinic has continually improved the care of the people in that area.

I have always been deeply grateful to the Mayo Clinic for its professional and medical educational support of all that my partners and I were doing at the Olmsted Medical and Surgical Group. It was a unique situation from all standpoints, particularly in regards to the many educational seminars in which the graduate students at the Mayo Clinic were involved. All visiting physicians and I were blessed with an open door and invitation to attend any or all of the various specialty seminars throughout the 15 years I was there.

The service, research, and education provided by the Mayo Clinic is a valuable triad recognized worldwide by the medical community. Besides, it upgrades the care of the people of Olmsted County, the region, and the nation. It would be nice if this arrangement could be developed throughout the nation and serve as a model for the rest of the world.

*John E. Verby, M.D.*

*Professor*

*Department of Family Practice  
and Community Health*

*Director*

*Rural Physician Associate Program  
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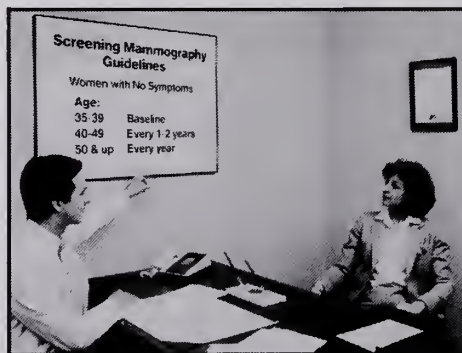
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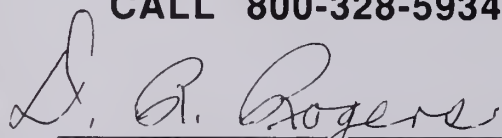
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# Score One for Physicians as Business People

*Minnesota Medicine interviews George V. Tangen, M.D.*

**Y**ou've heard the usual myths about doctors as business people. Doctors invest in risky ventures. Doctors don't save for a rainy day. Doctors don't band together to present a unified front. Doctors spend all their present cash rather than prepare for the future.

Well, like most myths, this bad business rap is not all true. And George Tangen, M.D., in his year-old role as chair of the Midwest Medical Insurance Company, was anxious in this interview to dispel the reputation of physicians as bad business people as quickly as he could.

In our conversation leading up to this interview, Dr. Tangen was blunt about his intent—to celebrate the success of the Midwest Medical Insurance Company as a business venture.

Thanks to pioneers such as Frank Johnson, M.D., Robert Flom, M.D., Douglas Beach, and others, the company is doing well, thank you, with lower rates, better service, and more favorable performance figures than its sister organizations in other states, says Dr. Tangen.

The company, by George, has moderated rates, returned premium dollars to physicians in 1989, has lower rates in 1990, has successfully expanded to North and South Dakota, has ample reserves, and offers a fast claim service.

Not bad for a physician-run business organization.

## MMIC's Report Card

**Minnesota Medicine:** Dr. Tangen, you're chair of the Midwest Medical Insurance Company (MMIC). This corporation has done extremely well in the market since it was founded 10 years ago. In essence, this interview celebrates the soundness of your organization. Who were MMIC's founders?

**Tangen:** The company was founded in 1980 by Minnesota physicians under the auspices of the Minnesota Medical Association (MMA). The founders wanted to assure the availability of malpractice insurance and moderate the medical malpractice premium costs that

were rapidly rising at the time.

**Minnesota Medicine:** And have you succeeded in moderating rates?



George V. Tangen, M.D.

"The physicians of Minnesota have been well served by this company they formed, own, and control."

**Tangen:** Rates have gone up over the years, but in Minnesota we have maintained rates below national averages. Our rates are among the lowest in some premium classes. In the last two to three years, we have seen moderation and the beginnings of a decrease in premiums.

**Minnesota Medicine:** How does your premium structure compare with the St. Paul Companies' here in Minnesota?

**Tangen:** Since its inception, our premium structure has, in most instances, been significantly lower than that of the St. Paul Companies, our largest competitor in this state. Our premium structure remains lower, even with St. Paul's rate reductions in the last year or two. At times, the St. Paul Companies' rates in some specialties can be 40 percent higher than a similar policy with our company.

**Minnesota Medicine:** What percentage of the eligible physicians in Minnesota do you insure?

**Tangen:** At the end of 1989, we insured 73 percent of what we consider the available market.

**Minnesota Medicine:** Do you restrict your services to Minnesota?

**Tangen:** No, we also write medical malpractice in North Dakota and South Dakota. About 40 percent of the available physicians in North Dakota are MMIC policyholders. In South Dakota it's a much smaller number.

**Minnesota Medicine:** You've changed your name, haven't you? The original name was the Minnesota Medical Insurance Exchange.

**Tangen:** Yes. In 1988, in response to our success and in an attempt to increase our flexibility, we reorganized and became the Midwest Medical Insurance Company and



the Midwest Medical Insurance Holding Company.

**Minnesota Medicine:** I understand physician-managed insurance companies now dominate the market nationally. What percentage of U.S. malpractice premiums are written by companies similar to yours?

**Tangen:** About 50 percent of all physicians are insured by companies that are members of the Physician Insurers Association of America (PIAA), which are all physician-owned companies.

**Minnesota Medicine:** And do you gather occasionally to compare notes?

**Tangen:** Yes. The PIAA holds annual and sectional meetings that we attend.

**Minnesota Medicine:** How does MMIC compare with similar organizations in other states?

**Tangen:** Our surpluses and our total assets compare very favorably with other physician insurance companies. At the end of 1989 we insured 3,795 physicians in Minnesota and North and South Dakota. We had assets of \$113.5 million. We had a surplus of \$36.1 million and a yearly written premium of \$33.8 million. Our premium-to-surplus ratio of .9-to-1 is very favorable compared with almost all other companies. The nationwide average is 2.5-to-1.

**Minnesota Medicine:** So after 10 years you're solid, stable, and optimistic?

**Tangen:** We're very solid, and we're very stable. We have optimism, but we also recognize that we're in a business that is subject to change. Our goals now are to maintain what we have attained while continuing to grow and respond to new conditions. We are concerned about possible future premium escalations—concerned that we might have a new malpractice crisis. We're optimistic about the present but wary of the future.

### ***Malpractice Rates***

**Minnesota Medicine:** In the last two or three years medical malpractice insurance rates have been moderating, have they not?

**Tangen:** Yes, they have. In 1989, because of favorable experience, we were able to return 12.5 percent of the premiums—that's \$4.8 million—to our physicians. This year, we have reduced our premiums by about 20 percent, or about \$8 million.

**Minnesota Medicine:** How do you go about reducing the risk of large suits against your insureds?

**Tangen:** We have a very active risk management committee and staff that have developed a clinic risk management survey program. This program has been well

accepted by our physician policyholders and their clinic staffs. As of July 1, 1990, we had reached 106 of our clinics covering 306 sites, which have 1,607 physicians and more than 6,983 clinic staff members. The program focuses on identifying potential malpractice problems and correcting these problems to reduce the actual instances of malpractice. These programs focus on the systems that clinics use; they do not focus on the direct medical treatment of patients. Systems can break down and cause difficulties in the defense of a claim. But even more important, the programs enhance communication within the clinic so that proper information is passed from one place to another and necessary treatments are instigated. This reduces delays that might result in an adverse outcome for a patient.

**Minnesota Medicine:** As I understand it, you work mostly with the clinic managers and doctors' staff to make sure the records are complete.

**Tangen:** Documentation is of utmost importance. It's difficult to defend a case when you don't have a record to support it.

**Minnesota Medicine:** How would you characterize the malpractice climate in this state vis-à-vis that in other states?

**Tangen:** Premiums have risen in Minnesota, but not at the rate of most other states. We're certainly not a Florida or a Massachusetts. At MMIC, we believe we have more moderate premiums because we have excellent physicians in Minnesota, and our risk here may be lower. We also think our company has helped to

keep rates more moderate. Additionally, through our claims staff, we have developed a relationship with the state's trial lawyers that we believe may have led to speedy and equitable settlements and the payment of just claims, which has ultimately benefited people who have had adverse outcomes as a result of medical care.

We still consider the plaintiffs' attorneys to be our adversaries, but we understand their need to represent their clients. We feel we must look out for the interests of our physicians and policyholders while working with the plaintiffs' attorneys in the spirit of friendly adversaries.

### ***A Physician-driven Organization***

**Minnesota Medicine:** You apparently take great pride in the fact that yours is a physician-driven organization making sound business decisions. How do you involve the physicians? What's the structure?

**Tangen:** As I stated earlier, this organization was formed by physicians under the auspices of the Minnesota Medical Association. We have a board of MMA-appointed physician directors. This board takes an active interest in setting the policy and direction of this company. Physician participation through our committee

---

“We believe we have  
more moderate  
premiums because we  
have excellent  
physicians in  
Minnesota.”

structure helps set the direction and gives assistance to our staff. The major committees are our claims, underwriting, risk management, and investment committees.

Our excellent chief executive officer, Douglas Beach, retired on June 30, 1990. He was with the company since its inception. David Bounk has been selected as our new CEO. We look forward to his carrying on the traditions established by Mr. Beach. We have four vice presidents who are all experts in their fields. The total number of employees is about 30.

### *The Hatch Report*

**Minnesota Medicine:** About a year ago, Michael Hatch, then Minnesota's commerce commissioner, issued a report that, in essence, said insurance premiums were overpriced in Minnesota and were pitched far above the actual experience. What has happened to the flap created by that report? What did it actually say?

**Tangen:** Commissioner Hatch's report said premium structures were too high in Minnesota, but it did not identify the individual companies. We felt at the time of that report that our premiums were strongly supported by our actuarial data, and we took exception to the commissioner's conclusions. We believed our competition did have a significantly higher premium structure, and that it was the primary focus of Commissioner Hatch's study and report. After negotiating with the commissioner's office, the St. Paul Companies signifi-

cantly reduced its premiums. The commissioner did not ask MMIC to reduce its premiums.

### *Professional Liability*

**Minnesota Medicine:** At about the same time as the Hatch report was issued, your company restructured your rates. You lowered the rates for seven specialties and raised them for two, internal medicine and neurology. These two happenings, namely the release of the Hatch report and the restructuring of your rates, led to a study group on professional liability by the Minnesota Medical Association. What were its conclusions?

**Tangen:** This report, made to the MMA's House of Delegates at the association's May 1990 annual meeting, concluded that the rates for professional liability insurance were generally appropriate, based on actuarial indications and the methodology used by carriers to assign premiums by specialty group classification. The group also noted that the insurance industry has a competitive cycle that can lead to swings in premium costs, which insurers should be encouraged to avoid. This is one of our company's goals. The study found that the rates for professional liability insurance in Minnesota are below the national average, and we believe we are partially responsible for that.

The report mentioned that we have a relatively high proportion of funds in reserve, which was deemed appropriate because of our number of years in business and

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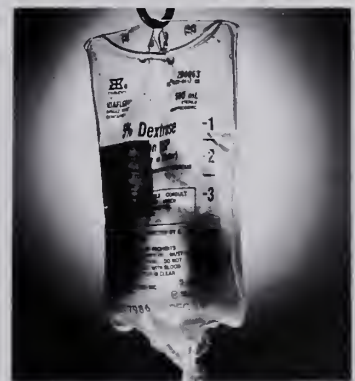
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our smaller size as compared with the large corporate insurance companies such as the St. Paul Companies.

The report also recognized that there have been fewer liability claims nationally in recent years. It does not appear that severity, however, is necessarily decreasing, and actually may be increasing. The report concluded that legal and investigative processing were increasing and must be monitored and controlled. We believe our company, through our active claims department, has been able to keep these processing costs relatively low, about half the national average. Our company is committed to trying to settle and dispose of claims expeditiously. Currently, we settle a claim in an average of 17 months, compared with a physician-held company average of nearly 36 months. Quicker service translates into decreased expenditures as well as a lower ultimate cost to our policyholders. It's our goal to maintain and enhance that service.

**Minnesota Medicine:** Once again, your service includes responsiveness, lower expenses, the quick settling of claims, and vigorous defense of the physician.

**Tangen:** Yes. Should an unwarranted claim be made, we should vigorously defend the physician. We find that in more than 80 percent of the cases that go to court, we obtain a defendant's verdict, and there's no payment of any form. Two-thirds of all claims and suits are settled or disposed of without any payment.

## *Managed Care, Underutilization, and MMIC's Future*

**Minnesota Medicine:** Minnesota is a unique state with its high penetration of managed care, especially in the Twin Cities. Managed care directly raises the cost of doing business for physicians' offices. Has managed care had an impact on the cost of doing business, or on the malpractice climate?

**Tangen:** We are concerned that the pressure managed care puts on physicians to reduce or possibly withhold medical services might increase the incidence of malpractice suits and claims and also might create a problem in the defense of claims, although we have not yet been able to document that this has occurred.

**Minnesota Medicine:** Some observers believe forced underutilization may be the Achilles heel of the managed care movement.

**Tangen:** Medical malpractice does not occur just because a physician's actions cause an adverse outcome. Medical malpractice also can occur when the withholding of services affects a patient's medical condition. The acts of omission can be just as important as the acts of commission.

**Minnesota Medicine:** Malpractice underwriting is a cyclical business. What cycle are we currently in?

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**Tangen:** Right now we're in what people characterize as a soft market. There has been a decrease in the frequency of malpractice claims and suits that has led to a moderation in insurance premiums locally and nationally. We don't think that's going to continue indefinitely. We anticipate that there will be new flurries of activities that may change this cycle.

**Minnesota Medicine:** Does MMIC have adequate reserves to cope with most contingencies, such as a worsening of the malpractice climate?

**Tangen:** Yes. We feel that it's absolutely necessary to maintain adequate reserves to be able to respond to market changes. This is what is called a long-tail business, and we don't know that what's happening today will not be reflected by significantly higher awards in the future.

**Minnesota Medicine:** What message do you wish to convey to readers of *Minnesota Medicine*? What, in short, is the moral of this tale?

**Tangen:** The physicians of Minnesota have been well served by this company they formed, own, and control and from which they ultimately receive many accrued benefits. Not only has the original \$200,000 invested in 1980 been returned to the MMA in full, but the physicians in the state have reaped significant individual benefits through lower premiums and good service. **MM**

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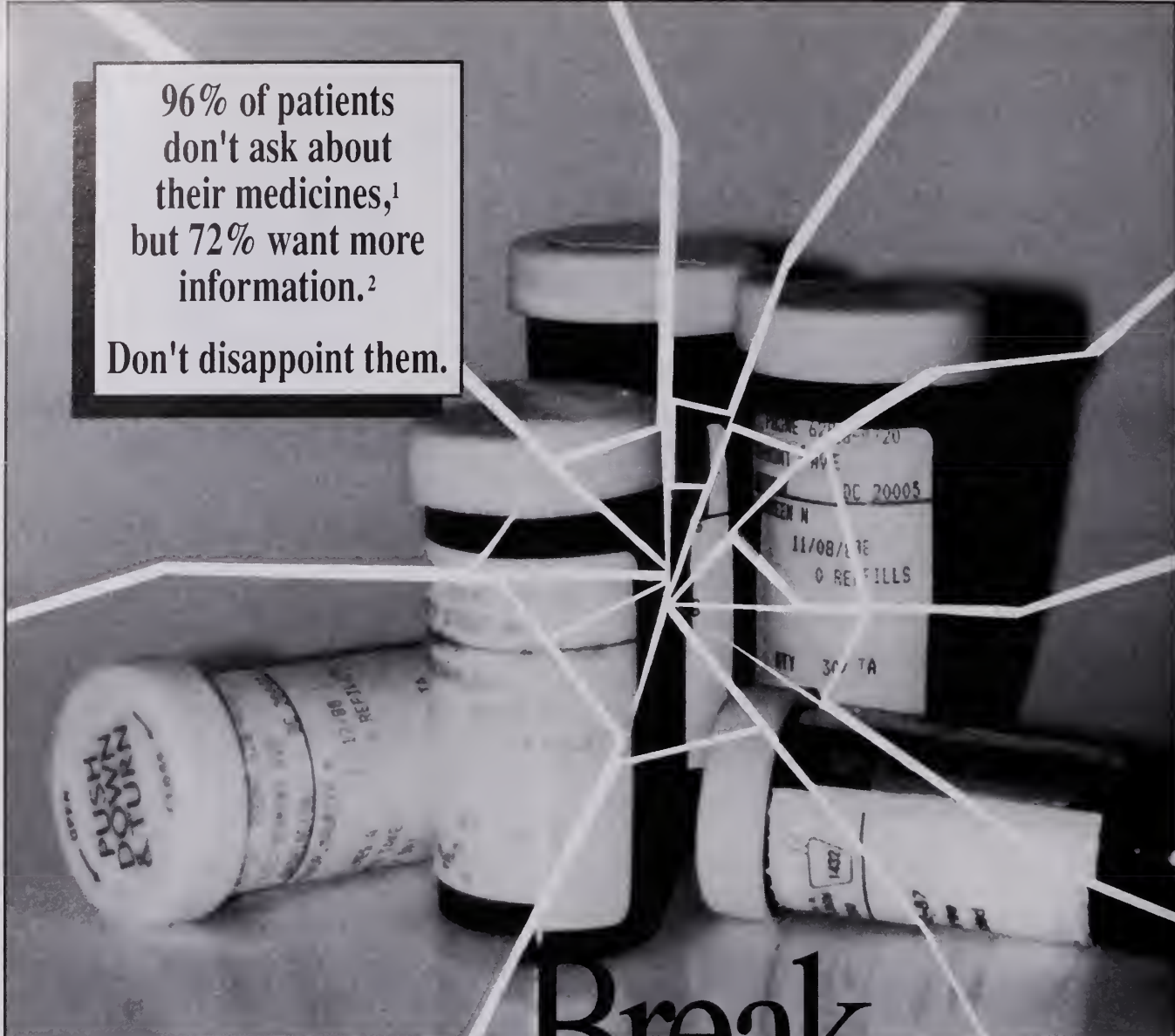


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**Contraindication:** Known hypersensitivity to the drug. Use with caution in patients with hypersensitivity to other H<sub>2</sub>-receptor antagonists.

**Precautions:** *General*—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

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**Carcinogenesis, Mutagenesis, Impairment of Fertility**—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

**Pregnancy—Teratogenic Effects—Pregnancy Category C**—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers**—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

**Pediatric Use**—Safety and effectiveness in children have not been established.

**Use in Elderly Patients**—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

**Adverse Reactions:** Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

**Hepatic**—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

**Cardiovascular**—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

**CNS**—Rare cases of reversible mental confusion have been reported.

**Endocrine**—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

**Hematologic**—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

**Integumental**—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

**Hypersensitivity**—As with other H<sub>2</sub>-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H<sub>2</sub>-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

**Other**—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

**Overdosage:** Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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# Medical Charity in the 1990s

*Rosemarie Reger-Rumsey, R.N., and Tim Rumsey, M.D.*

The 20-pound ovarian cyst was removed without complications, and the patient left the hospital on her own power after seven days. She received no bill from her surgeon or the hospital. She was a woman without means. The year was 1890 and the hospital was St. Luke's Protestant Church Hospital in St. Paul.<sup>1</sup>

A less fortunate version of medical charity was documented nearly a century later. A surgeon offering gratis care to an indigent woman inadvertently left an instrument in the patient's abdomen. Later, the patient brought a suit against the physician, even though she had the instrument removed without sequelae. The surgeon was found guilty of malpractice. His coverage at the time of surgery was inadequate, and he had to cover the \$50,000 difference from his own pocket.<sup>2</sup>

Charity care was simpler in medicine's cottage industry days because medicine was simpler. There were neighborhood hospitals and one-person offices above store fronts. Doctors could donate services without fear of litigation. Hospitals provided charity care as the basis of their founding mission statement. It was rare for people even to go to the hospital 100 years ago, except for the poor and unattached.<sup>3</sup> The irony today is that these same individuals—i.e., the uninsured and homeless—have the hardest time gaining admission to a hospital.

This current dilemma in medicine exists, in part, because we are clinically able but financially unable to provide for those in need.<sup>4</sup> Performing bypass surgery on an indigent person in 1990 is a different matter than was removing an ovarian cyst in a young woman in 1890, when both the physician and patient were powerless. They did what could be done and accepted the rest as fate. Unfolding medical research has since spawned expensive technology requiring the support of medical institutions. Hospitals have become arenas for medical miracles and complex procedures. Insurance has evolved into an industry focused on life, not burial expenses. Standards of care include both illness and wellness, and the threat of litigation hovers over everyone. Health care today is a business. Charity has become equal parts altruism, public relations, and tax write-off.

Doctors today still give charity care, but the number of people needing that care has multiplied. An estimated

31 million to 37 million Americans are without any form of medical insurance.<sup>4</sup> That includes 350,000 in Minnesota alone.<sup>5</sup> We can all relate stories of patients given uncompensated care. Statistics support these claims: 7 percent of all physicians' patients receive charity care.<sup>4</sup> Six percent of hospitals' gross revenue is charity care

(one-third actual charity and one-third bad debt).<sup>6</sup> Welfare recipients and elderly poor on Medicare represent another faction. Hospitals and physicians accepting Medical Assistance or Medicare assignment with their heavily discounted services are, in effect, donating some of those services.

Complex lives and sophisticated technology have raised ethical debates. What is quality of life? When does life begin? When does it end? Who pays—and how much? Now, when the standard of care for all people has been

raised to include prevention, where are homeless men getting flexible sigmoidoscopies and lipid screens? Where are uninsured women getting mammograms and endometrial biopsies?

The challenge of medical charity in the '90s reflects the challenge of modern existence.

Medicine is no longer a cottage industry; it is a health care system. Hospitals are managed by for-profit organizations. Nationally, 50 public hospitals have even gone corporate.<sup>4</sup> Private physicians are less willing to take Medicare assignment or Medical Assistance patients. Poor people are perceived as being more litigious and requiring more paperwork, and reimbursement for their care is marginal. Unfortunately, refusing to work with this kind of system does not hurt the corporations or the government, it hurts people.<sup>7</sup> Primary care doctors today stand as gatekeepers to the health care system and its technological wonders, but the ticket is still third-party payment.

By accepting Medicare assignment and Medicaid patients, as well as rendering gratis care, physicians serve as necessary stopgaps for those in need. However, charity care is neither efficient nor broad enough to address the needs of 37 million uninsured Americans. Generosity of spirit defines our humanity and is the very root of the medical profession, but we need to develop a system of universal access to health care. Medical charity for the

---

“Generosity of spirit  
defines our humanity  
and is the very root  
of the medical  
profession.”

*Continued*



1990s will call upon the creativity, responsibility, and acceptance of all Americans to meet this challenge. ■■

*Rosemarie Reger-Rumsey is a registered nurse and writer.*

*Tim Rumsey, also a writer, is a St. Paul family physician and a member of St. Paul's Homeless Healthcare Team.*

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*PA Bonnie White-Marsh assists Herbert Ward, M.D., at the VA Medical Center in Minneapolis.*

PHYSICIAN ASSISTANTS

# DON'T CALL ME DOCTOR

*By Pamela Hill Lampert*

*Photos by Rob Levine*

**I**n busy suburban family practice offices, crowded urban emergency rooms, sparsely populated outstate towns, and tightly booked cardiovascular ORs, physician assistants are practicing medicine. In Minnesota, about 150 physician assistants (PAs) see more than 2,500 patients a day under a physician's supervision; most PAs work in primary care, and almost 30 percent of Minnesota's PAs work in areas populated by fewer than 5,000 people.





*St. Paul-Ramsey emergency room staff Paul Haller, M.D. (left), and PA Steve Wandersee.*

In the 25 years PAs have been considered professionals, they have proven the theory that highly trained mid-level practitioners can assume many of the medical tasks traditionally performed by physicians—freeing up the physician to provide more highly skilled care. In a position created to address the national shortage of primary care providers, many PAs today remain committed to bringing medical care to underserved populations. A recent report from the state commissioner of health to the Legislature recommends that the number of PAs working in Minnesota be increased and that the scope of their practice be expanded—recommendations that are supported by new delegated prescribing legislation that takes effect June 1, 1991, allowing physicians to delegate to PAs authority to prescribe a limited number of drugs listed in the PA's practice agreement with the supervising physician. "This is part and parcel of our ongoing plans for rural health care," said Tom Hiendlmayr, director of Health Occupational Programs at the Minnesota Department of Health.

More than 1,100 PAs graduate from any one of more than 50 PA programs around the country each year. Graduation from a program accredited by the Committee on Allied Health Education and Accreditation qualifies a PA to sit for national boards, and completion of these certify, license, or register (depending on the state) a PA to practice in most states. Some PAs elect to go on

to specialty residencies, but most apply their generalist training to practicing with a primary care physician. Surgical, cardiac, emergency medicine, and other specialist PAs usually receive their specialty training directly from their supervisory physicians. Individual state regulations govern the scope of a PA's work and the requirements of his or her (about 40 percent of all PAs are women) reporting relationship with a supervisory physician. Physicians always have the option of further limiting and defining the role of their own PA. In order for a PA to practice, he or she must have a written agreement with a physician who agrees to supervise the PA's work—at satellite clinics, for at least 20 percent of the time—and be available for questions and referrals. Here in Minnesota, the PA Council of three PAs, two physicians, and two public members—all appointed by the Health Department—makes recommendations to the Board of Medical Examiners, which then approves or denies applications and supervisory agreements from PAs and physicians.

The first physician assistant program was founded in 1965 at Duke University by Eugene Stead, M.D.; by 1971, there were more than 50 programs in existence at colleges, universities, and medical centers nationwide. Within five years, the AMA House of Delegates recommended that states amend their medical practice acts and allow physicians to delegate tasks to qualified PAs. The

founders of the PA concept, according to the American Academy of Physician Assistants, intended the PA role to be always a physician-dependent one. PAs were not meant to assume new health care roles created by advanced technology but to perform traditional roles such as history-taking, physical exams, diagnosis, and patient management. Research from various sources indicates the physician assistant profession is well-accepted by patients, supervisory physicians, nurses, and other coworkers.

But despite PAs' achievements and widened acceptance, issues regarding the practice of medicine by PAs still linger. Laws governing their scope of practice, registration, and certification vary widely from state to state (although political efforts by organized PA groups are working toward unification); third-party reimbursement for their services remains complicated, and misinformation and misgivings about PAs still exist among some physicians, nurses, and patients.

"I think there's a real difference in viewpoints—a geographical difference," said Hiendlmayr. "In Greater Minnesota, physician assistants have a greater potential for utilization and a larger role. But in metropolitan areas, they can be viewed as just representing competition."

Reimbursement from third-party payers doesn't treat PAs as competition, however. Medicare demands graduated reimbursement to the PA's supervisory physician (PAs are never directly reimbursed, unlike some nurse practitioners) for hospital, surgical, and nursing home PA services; for clinic work, reimbursement is left up to the discretion of the individual carrier. A federal bill has been introduced obligating all Medicare carriers to reimburse physicians for any service their PA performs; some already do, some don't. Within federally designated Health Manpower Shortage Areas, rural health clinics reimburse supervisory physicians on a completely different system—a formula based on the clinic's yearly costs of delivering health care in that community.

"Physicians need to know that PAs are not just an added cost, we are a revenue generator," said Mark Zellmer, a PA in Red Wing and president-elect and legislative committee chair for the Minnesota Academy of Physician Assistants (MAPA). "We're deeply committed, as a group, to rural health care. That's where our profession grew up. We feel that's the area where we can fill a great need."

Why would PAs be more willing to live and work in outstate areas than physicians? "I think sometimes doctors want to come out to rural areas but still find all the medical amenities of the city. Of course, you can't get that very often," said Steve Scott, a PA who has worked in Park Rapids and Walker, Minnesota. "Physician assistants are willing to work with less high-tech and not all

the advanced equipment. PAs are trained to listen to patients well, to use fewer technological options. We're also granted a bit more freedom in rural areas. We can function more to the level at which we were trained."

Still, the fear that PAs are competing with doctors for patients seems to create some physician resistance to the use of PAs in both urban and rural areas. "A rural or city physician may worry that a PA is going to somehow compete with his or her practice," said MAPA President Mark Helgeson, who emphasizes that PAs aid physicians, they don't compete with them. "First of all, PAs exist only because physicians need us, and we work only under physician supervision. We're completely dependent upon physicians; we could never hang out our own shingle, nor would we want to," he said.

"If you have a PA who really wants to be a doctor, you don't have a good PA," said Bev Frye, a PA at North Clinic in Robbinsdale and immediate past president of MAPA. "PA training and PA regulations all focus on this: we're not in charge. We're trained well, and we're good at what we do, but we have to have that relationship with our supervisory physician where we can say: 'Here's a situation I'm a little uncertain about, and here's what I plan to do. What do you think?'"

"As long as PAs keep straight in their heads that they aren't the physician, they'll do fine," Helgeson said.

"It's sometimes harder for the patient to figure out who we are. I always identify myself with a name badge as well as verbally as I walk in. I usually take a moment and explain what a PA is. If the patient seems to be uncomfortable—and this has happened a few times—I can offer the patient the option to see the doctor. The patient should always have the option and never feel trapped or forced into seeing a physician assistant. However, I see a few patients who still get confused about what I am, but they're happy to see me and happy with their care."

Although their roles can vary, the PA's job is to reduce the physician's workload by performing tasks that don't require an M.D.'s expertise, and most physicians are quick to recognize the benefits of working with a PA. "I don't recall having any real concerns when I was about to begin working with a physician assistant," said Herbert Ward, M.D., Ph.D., assistant professor of surgery at the University of Minnesota and head of cardiovascular surgery at the Veterans Administration Medical Center. When he started work at the VA, Bonnie White-Marsh, a surgical PA, was already there. "Bonnie does three main functions for me: she dissects out the saphenous vein, prepares it for surgery, and closes the leg (she does that on her own while I'm in the room); she assists me in bypass or valve surgery; and she sees patients pre- and postoperatively—

---

"PAs are completely  
dependent upon  
physicians; we could  
never hang out  
our own shingle,  
nor would we  
want to."

—PA Mark Helgeson



does a physical, informs me of problems, administers meds. Much of this is done on her own, coming to me when there's a problem. If she's ever uncomfortable with what she's doing, I'm always available. But what she does is very specialized, very specific—and she's very good at it.

"Working with a PA gives me more continuity than working with residents. Resident turnover might be every two months. Just about the time I teach one how to be a good surgical assistant to me, he or she is gone. I've worked with Bonnie for two-and-a-half years, and she really knows how I like to work," Ward said.

White-Marsh, who was the first PA hired at two different locations, said she has never had any acceptance problems. "Sometimes the nurses didn't understand what I was and what their relationship to me was supposed to be, but once we started working together, that all worked out."

James Cicero, M.D., chief of the Emergency Medicine Department at St. Paul-Ramsey Medical Center, supervises a staff that has included PAs since 1985. The department started using PAs when it began seeing more patients than its physician staff could handle, Cicero explained. "We also wanted a more permanent staff and more continuity than residents can typically provide. Now, PAs have become a very integrated part of our department—we love them. They're so much in demand, we have some trouble recruiting them."

In St. Paul-Ramsey's ER, the doctors see every patient with the PAs, but that's not the case in all settings, Cicero points out. "Sometimes, a PA might end up running a rural practice on his own. I think many get used as substitute physicians. We had a guy hired away from us who was put out in a satellite clinic alone, with no one else in the building to look at patients with him, and that was uncomfortable for him. Some health care is better than no health care, and I'm sure people are glad he's there, but I do not personally see PAs as the solution to the rural health care problem.

"The idea behind PAs is to teach people the top three feet of medicine, and not go 40 feet deep into every possibility of every solution, like medical school does," says Cicero. "That's not to imply that PAs aren't good—they get very good at what they do, especially if they're well supervised. We have some real crackerjacks here. I

know them well, I know what they can do, and I trust them.

"I'd hate to add any further paperwork or regulations to supervisory physicians of PAs—that's not what I mean to say," Cicero said. "But I do think that supervision—which is the physician's responsibility—is not what it should be in many cases."

Greg Latterell manages Lakewood Clinic, P.A., in Staples, Minnesota. PA Mark Helgeson works in its Eagle Bend satellite clinic. "According to the law," said Latterell, "a PA must be directly supervised 20 percent of the time. That means eight hours of on-site supervision a week, and that's what we do. Two days a week, for half

a day, one of our doctors is out there with Mark. And, of course, Mark has telecommunications capability wherever he is and wherever the doctors are. If there was a patient with a major problem on a day that a doctor wasn't on the site, Mark would just have to ask the patient to wait until the doctor could get there, or would have to help arrange to get the patient to the doctor. Our physicians do not resent going out to the satellite clinics—in fact, I think they really have a good feeling about it—and Mark is the perfect answer for us."

Helgeson believes both PAs and physicians realize the importance of adequate supervision. "We're in a position to

diagnose and treat illness. Of course, there needs to be accountability, rules, regulations, registration. PAs have been organized and asking for these things for years. And physicians have to comply with the law and do chart review and be available; I think they do that.

"However," said Helgeson, "just because I don't know personally of any case of poor supervision doesn't mean there isn't the potential for that to happen. We have to depend on the integrity of the PA, and on the integrity of the physician, and on their compliance with the law. But we also have to stay aware of the possibility and be responsible as a profession."

PA Steve Scott believes his relationships with his supervisory physicians have been particularly important in his rural family practice work. "I've had good working relationships; I've never felt over- or undersupervised. The physicians I work with trust me, they know me, we've worked together. That's what creates the trust—actually seeing each other work."

## PHYSICIAN ASSISTANTS' ROLE

According to the Minnesota Academy of Physician Assistants, PAs can improve health care delivery by:

- Promoting better distribution of health care services,
- Increasing accessibility to care in rural areas,
- Increasing efficiency within ambulatory care practices,
- Reducing patient waiting time, allowing physicians more time for difficult cases,
- Reducing frequency and duration of hospitalizations by stressing preventive health care,
- Encouraging better patient rapport and compliance, making PAs possibly "one of the best malpractice prevention tools available," according to legal counsel to the American Medical Association.



*PA Bev Frye and John Dryer, M.D., at the North Clinic in Robbinsdale, Minnesota.*

White-Marsh said her experience has been similar: "I've never had any problems of poor supervision," she said. "The first time I opened a chest, I was reluctant to do it, but a surgeon stood at my side, saying, 'Bonnie, you can do this.' I just do this one thing, and I do it very well. I'm not trying to do everything."

Frye describes the PA-physician relationship as a two-way street. "It's up to the PA to let the physician know when she feels over her head," says Frye, who sees patients in a clinic setting. The front desk has a list of types of patient complaints that may not be assigned to staff PAs: chest pain, workers' compensation cases, car accidents, strokes, complicated fractures, and lacerations. "Otherwise, I probably see about the same kind of stuff the physicians see," she said. "It can go in streaks. Sometimes, I'll have a day where I've got a question on every case. That can make a supervisory physician grumble, because I'm there to save them time, not slow them down, but they understand that I'm asking because this one goes beyond the level of my experience and education."

**I**t seems logical that nurse practitioners might be another group potentially feeling competitively threatened by PAs. Although their training is different, the turf—working as a physician extender—is similar. Nurse practitioners are trained after a four-year R.N.

degree on a master's degree level; a few PA programs are on a master's degree level, but most are baccalaureate, and a previous R.N. degree is not required.

"Both physician assistants and nurse practitioners provide levels of health care that can help us meet our rural health care needs," said Marilyn Cunningham, staff specialist for nursing practice at the Minnesota Nurses Association (MNA). "Some physicians may be comfortable using one or the other. A PA may be more likely to be employed in a central office performing delegated medical tasks. A nurse practitioner comes from a nursing background and approaches patients differently. A nurse practitioner can be an independent practitioner, although that's not how they're generally used in Minnesota."

The clinical roles of physician assistant and nurse practitioner are similar, said Sue Stout, staff specialist in governmental affairs with the MNA. "The best use of a nurse practitioner is in a clinic setting with a clear understanding between the nurse practitioner and the physician about job functions. This is probably true for PAs, as well. In talk from professional association to association, you hear all kinds of concerns—scope of practice, delegating, working relationships—but when you talk to nurse practitioners and doctors and physician assistants in practice together, they're doing a wonderful job. On a one-to-one level, they all seem to be working



out the kinks."

Job opportunities for PAs flourish. Five regional PA training programs exist; all reported significant increases in their admission rates over the last two years, and the ratio of jobs to graduates ranges from 8-to-1 to 12-to-1.

"It's going up dramatically," said Jesse C. Edwards, assistant director and associate professor of the Physician Assistant Program at the University of Nebraska Medical Center. "In 1988, 57 people applied to our program. Last year, 132 applied. Of our applicants, 70 percent already had a bachelor's or master's degree. Since a lot of hospitals have decreased residency programs, and with more people hearing about and becoming familiar with the profession, there's heightened interest. Also, salaries are a bit better. Three years ago, an average starting salary was \$28,000. Now, it's \$31,750."

The University of North Dakota Family Nurse Practitioner Program (which is also accredited for PAs) is experiencing the same trend. "We had more applicants by this July than we usually have at this time," said Mickey Knutson, co-director of the program.

But even the fast-growing number of PAs won't

**"Working with  
a PA gives me more  
continuity than  
working with  
residents."**

—Herbert Ward, M.D.

create competition for other providers, Knutson said. "I don't think more PAs mean a threat to nurse practitioners or to physicians—there are more than enough patients to go around, especially where there's a maldistribution of providers. Some areas may be competitive, but certainly not in rural areas, in correctional institutions, and among Indian and aged populations."

The degree of integration of the PA into medical practice since 1965 is

impressive. Perhaps their successful creation of a new health care profession is largely due to their ability to respond to physicians in helpful, non-threatening ways while offering patients what they want—more listening time from a medical professional, a less rushed schedule at their doctor's office, and health care close to their own community.

"I just see that we can do a tremendous service for doctors," Helgeson said. "We can be a tool they can use, and an answer for getting health care out to rural areas."

MM

*Pamela Hill Lampert is a free-lance writer, editor, and consultant living in Anoka.*

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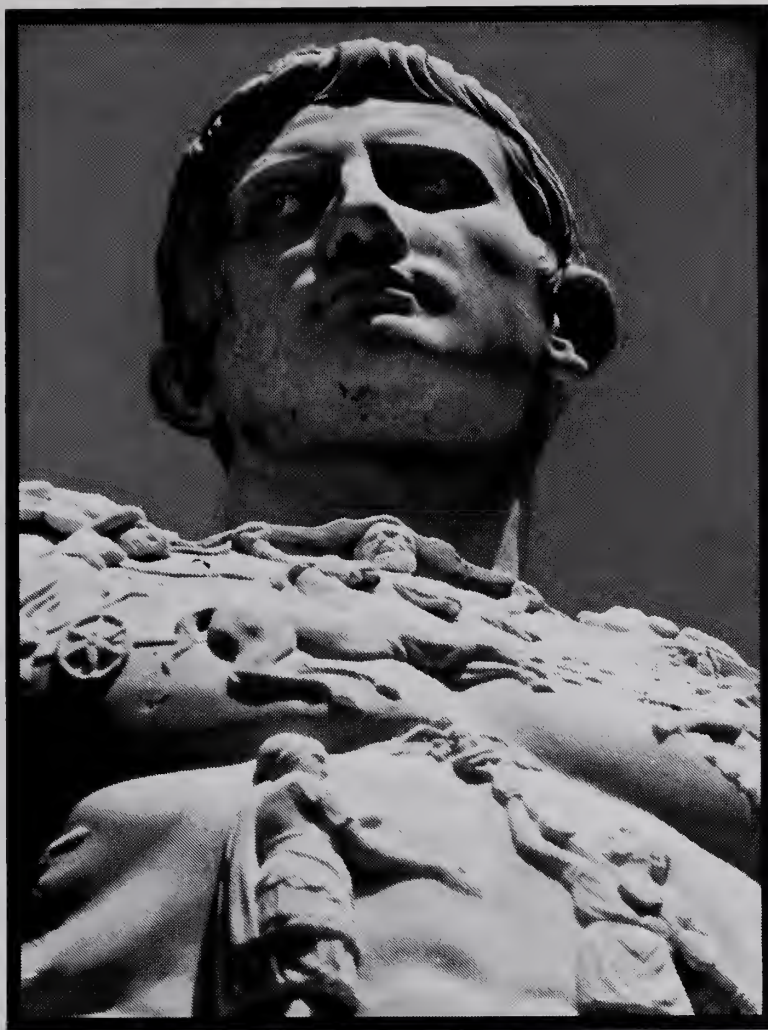
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1. Benson RC Jr.: Laser photodynamic therapy for bladder cancer. *Mayo Clinic Proc* 61:859-864, 1986.
2. Guttormson NL, Bubrick MP: Mortality from ischemic colitis. *Dis Colon & Rectum*, to be published.
3. Chatterjee SN: Use of GOR-TEX grafts as vascular access procedure for chronic hemodialysis. Abstract of a paper submitted to the European Society for Artificial Organs Eighth Annual Meeting, Copenhagen, August, 1981.
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# Cholecystectomy in Two Small Community Hospitals

Mansur Taufic, M.D., F.A.C.S.

## ABSTRACT

From 1958 to 1988, the author performed 981 cholecystectomies for nonmalignant gallbladder disease in two small southeastern Minnesota hospitals. Of the 981 patients treated, 708 were women. Among patients under age 40, the proportion of women was even higher, about 9 to 1. The peak age for cholecystectomy in both sexes was between 50 and 70. A normal gallbladder was found in 0.5% of patients, and 0.4% had cholecystitis without stones. The complication rate was 9.7%, and the mortality rate was 0.6%. All of those who died were 70 years old or older. These results compare favorably with those published from large institutions and indicate gallbladder surgery can be performed safely and effectively in small hospitals.

This report studies my experience with 981 consecutive cholecystectomies for nonmalignant disease performed in two small community hospitals located in neighboring counties in rural southeastern Minnesota during a 30-year period. My purpose is to analyze and compare my results against those of larger institutions, particularly with regard to morbidity and mortality. More than half of U.S. hospitals have fewer than 100 beds, leading me to the assumption that many of the 500,000 cholecystectomies performed each year in the United States take place in small hospitals.

## Materials and Methods

From July 1958 through June 1988, operations were performed on 739 patients at St. Olaf Hospital, Austin, Minnesota (population 23,000), and 242 patients at Community Memorial Hospital, Spring Valley, Minnesota (population 2,600). St. Olaf has 90 beds, and Community Memorial 24. Both facilities have a staff of board-certified family physicians and ancillary specialists and are equipped for routine diagnosis and surgical treatment of biliary tract disease. The surgeon was usually assisted at the operation by the referring physician, who also shared responsibility for the preoperative and postoperative care.

In general, the preoperative diagnosis of cholecystitis was based on history, physical examination, and laboratory and radiological tests, including ultrasonography and radionuclide scintigraphy. Most patients were symptomatic. Patients suspected of having acute cholecystitis underwent early surgery after a short period of intravenous fluid and antibiotic therapy.

In most cases, the abdomen was

entered through a right subcostal incision extending across the midline; the gallbladder was removed from the fundus toward the common duct after dissection and Hemoclip occlusion of the cystic artery and duct. Transcystic cholangiograms were obtained according to a technique previously reported.<sup>1</sup> The common duct was drained with a T-tube and the abdomen with a Hemovac drain.

Statistical data obtained from the patients' medical records were accumulated and periodically reviewed.

## Results

For a summary of demographic, procedure, and complication and mortality information, see tables 1 through 4.

## Complications

Table 4 lists the six fatal and 89 nonfatal complications among 90 patients (9.2%).

Retained stones in the common duct were observed in postoperative cholangiograms in seven patients. Two were reexplored, three passed stones spontaneously, one had stones removed with a wire basket, and another was treated with heparin flushing. In one additional patient who had single cholecystectomy for acalculous cholecystitis, a common duct stone was found at autopsy.

Six patients had bile duct injury. One had transection of the right hepatic duct and another of the common duct; in both, immediate repair was successful. In one patient, a small-caliber common duct was partially traumatized during T-tube choledochostomy. This resulted in a biliary fistula, which closed spontaneously after 36 days. In two instances, the cystic duct was avulsed at its junction with the common duct, and oversewing of a small common



Table 1

*Age, sex, and mortality of cholecystectomy patients*

| Age Group | Female | Male | Total | Deaths<br>No. (%) |
|-----------|--------|------|-------|-------------------|
| 10-19     | 21     | 1    | 22    | 0                 |
| 20-29     | 87     | 8    | 95    | 0                 |
| 30-39     | 85     | 12   | 97    | 0                 |
| 40-49     | 131    | 53   | 184   | 0                 |
| 50-59     | 144    | 75   | 219   | 0                 |
| 60-69     | 140    | 70   | 210   | 0                 |
| 70-79     | 77     | 38   | 115   | 3 (2.6)           |
| 80-89     | 23     | 16   | 39    | 3 (7.7)           |
| TOTAL     | 708    | 273  | 981   | 6 (0.6)           |

The overall ratio of female to males was 2.6-to-1, and this ratio was even greater among patients under 40.

duct wall defect and T-tube drainage were necessary. In one patient, cholangiograms showed partial rupture of the left intrahepatic duct caused by an overdistended Fogarty balloon without further complication.

Wound dehiscence was noted in six overweight patients, five of them male. Of these, four had a right paramedian incision. Four patients experienced bile leakage, which resolved spontaneously within three to 10 days in all. The incidences of wound abscess and hematoma were low.

Of the three patients with acute pancreatitis, one died. This patient was a 74-year-old hypertensive woman with chronic cholecystitis and cholelithiasis who underwent cholecystectomy and sphincterotomy. Death occurred on the 21st postoperative day. Autopsy revealed acute hemorrhagic pancreatitis, generalized peritonitis, and acute renal tubular necrosis.

Two patients suffered excessive bleeding and needed blood transfusions and reoperation. The source of the bleeding in one was from the greater omentum, and in the other from the transected rectus muscle.

Intraperitoneal sepsis occurred in two patients; one had an intermesenteric abscess, and the other bile peri-

tonitis. The latter patient was an obese 85-year-old woman who underwent cholecystectomy for chronic acalculous cholecystitis and died on the 11th postoperative day. Autopsy revealed generalized peritonitis and right subphrenic abscess caused by necrosis and perforation of the cystic duct stump produced by the occluding Hemoclip. A small calculus was also found in the common duct.

In one instance, a Penrose drain was sucked into the peritoneal cavity and had to be removed under general anesthesia.

One patient died from shock. He was 89 years old and had undergone emergency surgery for a large, strangulated inguinoscrotal hernia, volvulus of the cecum, and torsion with gangrene of an acalculous gallbladder! He died shortly after surgery, which consisted of hernia repair, orchiectomy, cholecystectomy, and hemicolectomy. An autopsy was not performed.

General complications not related directly to surgery accounted for more than half of all complications (57%). Many of them were transient, such as pulmonary atelectasis, mental confusion, urinary retention, and fever of unknown origin. Of the 54 complications in this category, 26 were life-threatening. They include pneumonia, cardiac failure, coronary ischemia, myocardial infarction, iliofemoral thrombophlebitis, protracted ileus, hip fracture, and total sympathetic block during anesthesia.

Three deaths occurred in this group. One patient died from infarction of the small bowel found at autopsy—a 70-year-old man with compensated mitral stenosis, left bundle branch block, and coronary arteriosclerosis. He died three days

Table 2

*Biliary procedures and mortality*

| Procedures                                     | Patients<br>No. (%) | Deaths<br>No. (%) |
|------------------------------------------------|---------------------|-------------------|
| Cholecystectomy alone                          | 638 (65.0)          | 1 (0.2)           |
| Cholecystectomy plus:                          |                     |                   |
| Choledochotomy                                 | 74 (7.5)            | 1 (1.4)           |
| Choledocholithotomy                            | 63 (6.4)            | 0                 |
| Choledocholithotomy and papillotomy            | 15 (1.5)            | 0                 |
| Choledocholithotomy and choledochoduodenostomy | 4 (0.4)             | 0                 |
| Sphincterotomy                                 | 15 (1.5)            | 2 (13.3)          |
| Choledochoduodenostomy                         | 2 (0.2)             | 0                 |
| Extrabiliary procedures                        | 170 (17.3)          | 2 (1.2)           |
| TOTAL                                          | 981 (100.0)         | 6 (0.6)           |

Table 3

*Pathological findings and mortality*

| Findings                | Patients |          | Deaths |        |
|-------------------------|----------|----------|--------|--------|
|                         | No.      | (%)      | No.    | (%)    |
| Chronic cholecystitis   | 819      | (83.5)   | 4      | (0.5)  |
| Calculous               | 786      |          | 0      |        |
| Acalculous              | 33       |          | 0      |        |
| Acute cholecystitis     | 154      | (15.7)   | 2      | (1.3)  |
| Calculous               | 148      |          | 0      |        |
| Acalculous              | 6        |          | 0      |        |
| Cholesterosis alone     | 2        | (0.2)    | 0      |        |
| Rudimentary gallbladder | 1        | (0.1)    | 0      |        |
| Normal gallbladder      | 5        | (0.5)    | 0      |        |
| TOTAL                   | 981      | (100.0%) | 6      | (0.6%) |

Summary of pathological findings: Common duct stones were found in 58 of 819 (7%) patients with chronic cholecystitis, and in 24 of 154 patients (15.6%) with acute cholecystitis. Not included in this series are two patients with carcinoma of gallbladder. Note that death rate of patients with acute cholecystitis was more than twice that (1.3% vs. 0.5%) of patients with chronic cholecystitis.

after cholecystectomy for chronic cholecystitis and cholelithiasis and an appendectomy. A 78-year-old man with jaundice and acute calculous cholecystitis died nine days after cholecystectomy and negative common duct exploration. There was no autopsy. The probable cause of death was acute hepatic failure. The third death was that of a 78-year-old jaundiced woman who underwent cholecystectomy for chronic cholecystitis and cholelithiasis, sphincterotomy for stenosis, and liver biopsy. Autopsy revealed diffuse hepatic necrosis, probably due to acute viral hepatitis.

The average age of patients with nonfatal complications was 58 years, and of those who died, 81 years. Complications occurred in 8% of patients with chronic cholecystitis and in 14% of those with acute cholecystitis. Ten percent of patients with common duct exploration had complications. The average postoperative hospital stay was 6.4 days for cholecystectomy alone and eight days when common duct exploration was also performed. In more recent years, postoperative hospitalization was considerably shorter.

## Discussion

These results from two small southeastern Minnesota hospitals substantiate reports on cholecystectomy from large clinics and institutions in the United States in the last three decades.<sup>2-14</sup> Women are more often afflicted than men, and the disease and its complications are more prevalent in later decades of life.

Histologically normal gallbladders were removed from 0.5% of the patients as compared with 2.1% reported by others.<sup>2</sup> The 10.3% incidence of choledocholithiasis without cholecystolithiasis contrasts with the 21.4% in other series.<sup>3</sup> The rate of 8.4% of stones in the common duct lies between the 7.3% and 9.9% cited by others who observed that choledocholithiasis was more frequent in acute than in chronic cholecystitis.<sup>4,5</sup> The incidence of common bile ducts explored (17.6%) and of positive findings (57%) approximate those reported by others who also frequently used operative cholangiography.<sup>3,6</sup>

Complications reported by others range widely from 4%<sup>7</sup> to 52.6%,<sup>8</sup>

this variance being related to the methods of reporting. The 9.7% rate reported here includes both minor and major complications. As in most series, the majority were not related directly to the operative procedure. Pulmonary and cardiovascular conditions were the most frequent causes of complications. Of the complications from the surgery itself, there were less than 1% in each category. The 0.8% incidence of residual common duct stones was similar to that in other series.<sup>7,10</sup> Wound infection was low, even though prophylactic antibiotics had been used with restraint. No complications occurred as a result of cholangiography.

The overall mortality rate reported by surgeons in the United States ranges from 0.5%<sup>7</sup> to 2.9%.<sup>8</sup> In this series it was 0.6%. This personal experience confirmed the well-recognized risk factors for mortality in cholecystectomy: age, acute cholecystitis, associated common duct and extrabiliary procedures, and coexistent illnesses. In this study, there were no fatalities among 827 patients less than 70 years of age; conversely, mortality rose steeply among older patients. No deaths occurred in the smaller hospital, where patients were younger and the number of high-risk individuals was smaller.

As in all other reports, acute cholecystitis contributed more frequently to mortality than did chronic cholecystitis. Emergency cholecystectomy with or without a common duct procedure was the operation of choice in acute cholecystitis and is the one supported in more current reports.<sup>7,9</sup> Technical difficulty, bile duct injury, and increased morbidity—arguments presented by those who recommended delayed surgery or cholecystostomy for acute cholecystitis<sup>10,11,15</sup>—were not observed in this series.

Choledochotomy alone and transduodenal sphincterotomy contributed to mortality, whereas choledocholithotomy alone or even in combination with papillotomy or choledochoduodenostomy did not result in a fatality. Others have found, however, that morbidity and mortality increased with positive common duct exploration.<sup>11,12</sup> Also important



was the fact that there were no deaths after cholecystectomy alone in patients without ductal disease; the only patient who died had a stone in the common duct. Extrabiliary procedures and preexisting diseases, particularly cardiovascular disorders, also resulted in deaths, as other authors report.<sup>10,13,14</sup>

## Conclusion

This study indicates that biliary tract surgery can be carried out safely and successfully at small hospitals, provided that it is performed with good surgical judgment, technical skill, adequate preoperative and postoperative care, and proper patient selection.

This is an important observation, because more than 500,000 cholecystectomies are performed each year in the United States. Since more than half of all U.S. hospitals have fewer than 100 beds, many of these cholecystectomies occur in small hospitals. MM

*Mansur Taufic is a retired surgeon who practiced at St. Olaf Hospital in Austin, Minnesota, and was a consultant to the Community Memorial Hospital in Spring Valley, Minnesota. He currently lives in Austin.*

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Table 4

### Complications and mortality in 981 patients

| Complications                    | Total No.  | Deaths No. |
|----------------------------------|------------|------------|
| Directly related to surgery:     |            |            |
| Residual stone                   | 8          | 0          |
| Bile duct injury                 | 6          | 0          |
| Wound dehiscence                 | 6          | 0          |
| Bile leakage                     | 4          | 0          |
| Wound abscess                    | 4          | 0          |
| Wound hematoma                   | 4          | 0          |
| Acute pancreatitis               | 3          | 1          |
| Hemorrhage                       | 2          | 0          |
| Peritoneal sepsis                | 2          | 1          |
| Retained Penrose drain           | 1          | 0          |
| Shock                            | 1          | 1          |
| TOTAL                            | 41         | 3          |
| Not directly related to surgery: |            |            |
| Pulmonary                        | 19         | 0          |
| Cardiovascular                   | 9          | 1          |
| Gastrointestinal                 | 6          | 0          |
| Hepatic                          | 2          | 2          |
| Urologic                         | 8          | 0          |
| Neurologic                       | 5          | 0          |
| Miscellaneous                    | 5          | 0          |
| TOTAL                            | 54         | 3          |
| TOTAL NUMBER OF COMPLICATIONS    | 95 (9.7%)* | 6 (0.6%)   |

\*These 95 complications occurred in 90 patients.

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# The Urethral Syndrome: Myth or Reality?

## A Commentary

William E. Price, M.D.

### ABSTRACT

Although most urologists will agree that dealing with patients suffering from the multiple symptom complex commonly called the urethral syndrome is often time consuming, its origin and treatment continue to generate debate. This essay proposes that entrapment of sensory nerves in the wall of the urethra by fibrosis leads to an abnormal response of Barrington's reflex II, which, in turn, leads to the urethral syndrome. Periurethral fibrosis occurs following trauma, infections, and pelvic irradiation therapy. The urethral syndrome, the author concludes, is therefore based on recognized anatomical factors. The recommended treatment is urethral dilation accompanied by hot sitz baths and short courses of Sulfamethoxazole-Trimethoprim. Long-term drug therapy is to be avoided.

Any discussion of the urethral syndrome is likely to evoke strong and often opposing opinions regarding its origin and treatment. Most clinical urologists will agree that a large amount of time can be expended dealing with patients suffering from this disorder. The urethral syndrome occurs most often in women, but it's not uncommon in men. Many of these patients exhibit stress and anxiety. Symptoms include increased urinary frequency day and night; urgency and urgency incontinence; dysuria; dull or sharp pain in the suprapubic, inguinal, perineal, perirectal, or low-back regions, usually not associated with urination; and a sensation of incomplete bladder emptying. The catheterized urinalysis is negative, and the urine culture is sterile by routine bacteriologic testing. Before being seen by the urologist, these patients frequently have consumed large amounts of antibacterial medications, urinary topical analgesics such as phenazopyridine hydrochloride or methylene blue, and various anticholinergic and antispasmodic drugs—all with little or no relief. Cystoscopy is indicated to measure the urethral caliber and detect interstitial cystitis, which may occur concurrently with the urethral syndrome.

Stamey<sup>1</sup> and Jacobo<sup>2</sup> have described the syndrome in detail, and they ascribe the etiology as infectious due to invasion of fastidious microorganisms or obligate anaerobes in the urethra. These organisms cannot be isolated by usual bacteriological techniques. Standard textbooks, such as the latest issue of *Campbell's Urology*,<sup>3</sup> pay scant attention to this symptom complex. Evans<sup>4</sup> has taken a more realistic approach, and he accurately describes the problem as usually stress related and not caused

by an infectious agent.

The female urethra is a complex tubular structure containing muscular, fibrous, vascular, nervous, glandular, and mucosal components. In the male, the urethra proximal to the prostatic-membranous juncture is homologous to the entire female urethra, with the major differences being the verumontanum and surrounding prostate gland. Male patients with the urethral syndrome may have associated abacterial prostatitis (also known as prostatic dysuria or prostaticitis), benign prostatic hypertrophy, or posterior urethral fibrosis and vesical neck contracture following transurethral resection of the prostate (TURP).

Between 1921 and 1931, Barrington described six reflexes in the cat in attempting to explain the reflex control of urination.<sup>5</sup> Although his work has not been universally accepted, reliable studies have demonstrated the reflex in humans.<sup>6,7</sup> I am concerned here with Barrington's reflex II, which by definition says that a strong detrusor contraction is effected by running liquid through the urethra.<sup>8</sup> The afferent sensory neuropathy is through the pudendal and pelvic nerves to the pudendal and detrusor nuclei in the conus medullaris, with connections to and from the cerebrum through corticoregulatory tracts. The efferent motor neuropathy is through the pelvic nerves originating in these spinal cord nuclei to the detrusor muscle.

Peripheral neuropathy due to nerve entrapment is a well-known entity. Dawson et al. state that "increased pressure on a nerve within a closed space can come from a constricting scar."<sup>9</sup> Stewart and Aquayo have noted "in entrapment neuropathies, localized pain is a common complaint, but the pain may radiate



or be referred to other sites, some a considerable distance from the damaged nerve."<sup>10</sup>

This essay proposes that entrapment of sensory nerves in the wall of the urethra by fibrosis leads to an abnormal response of Barrington's reflex II, in turn leading to the multiple symptom complex herein described. The urethral syndrome is thereby based on recognized anatomical and physiological factors. Periurethral fibrosis has several causes, including idiopathic factors (possibly stress related) and hormonal deprivation, and it occurs following trauma, infections, and pelvic irradiation therapy.

Based on this thesis, an explanation for the success of the following therapeutic strategy may be proposed. Every urologist who has dilated the urethra has wondered why many patients obtain quick relief from the symptoms of urethral syndrome. A likely explanation is release of sensory nerve entrapment by the dilation and ablation of Barrington's reflex II. By the same mechanism, detrusor hyperreflexia may be abolished by TURP.<sup>6</sup>

The best instrument for dilating the female urethra and the male posterior urethra after TURP is the Kollmann dilator. Devised by the German physician Arthur Kollmann in about 1890, the dilator expands the urethra with four sturdy, blunt, stainless steel blades, with the degree of expansion controlled by a calibrating dial. The instrument is available as straight or Van Buren curved models. Creevy believes the dilation should be carried to 35F.<sup>11</sup> Careful technique is necessary to avoid injury to the urethra. Repeated dilations at appropriate intervals may be necessary for sustained symptomatic relief.

Thus, although many patients with the urethral syndrome are tense and apprehensive, symptomatic improvement is usually possible by adequate urethral dilation. Adjuvant therapy with hot sitz baths and short courses of Sulfamethoxazole-Trimethoprim are indicated. Long-term drug use, which is expensive and often poorly tolerated, is to be avoided. The urologist who treats patients with the urethral syndrome

must have patience and compassion and listen to multiple complaints.

In conclusion, it is my opinion that the urethral syndrome is no myth. Explaining to these patients a possible cause of their suffering and why a treatment plan should work will help allay their anxiety and will improve therapeutic results.

*William Price is a clinical assistant professor in the Division of Urology, Department of Surgery, University of Minnesota Medical School, and a practicing urologist on the staff of Abbott Northwestern Hospital in Minneapolis, Minnesota.*

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# The National Practitioner Data Bank

## *From the Physician's Perspective*

Kristin Larson, J.D.

Congress enacted the Health Care Quality Improvement Act, Title IV of the Public Law 99-660, in 1986 to protect the public from providers of standard care by 1) providing immunity from liability for damages resulting from good-faith peer review activities; and 2) establishing a central data bank that would serve as a nationwide repository for information related to professional conduct and competence, licensure status, and physician malpractice claims.

After four years of discussion and long delays (and as this publication goes to press), the National Practitioner Data Bank is scheduled to open September 1, 1990, under direction of the Health Resources Services Administration, housed within the Department of Health and Human Services (HHS). Unisys has been awarded the contract for implementation of the Data Bank, and the required government forms for interacting with the Data Bank have received final approval. Although much of the burden of filing the reports and querying the data bank falls to other health care entities, the impact of this law will be felt most directly by individual practicing physicians. To protect their interests adequately, physicians must understand the provisions contained in this law.

### **Required Reporting**

First, it is important to note that there are no reporting requirements until the Data Bank becomes operational. If the implementation date is delayed beyond September 1, 1990, the requirements contained in the law will also be delayed. Moreover, once the reporting requirements have become effective, no retroactive reporting will be required.

Essentially, four types of actions must be reported to the Data Bank (the fact that PRO actions are not currently reportable appears to be an oversight in the law):

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“It would be both  
naive and unrealistic  
to assume that all the  
information  
submitted to the  
Data Bank will be  
accurate.”

**1. State Medical Board Actions:** Every state board of medical examiners must report to the Data Bank any licensure action (based on professional competence or conduct issues) that revokes, suspends, or otherwise restricts a physician's license. The board must submit this information to the Data Bank within 30 days of the date of final licensure action.

**2. Clinical privilege actions:** Hospitals and other health care entities must report to their state board of medical examiners when the following actions are taken against a physician's clinical privileges:

- a) any professional review action, based on competence or conduct, *that affects or could adversely affect the health or welfare of a patient(s)*, that results in denial, revocation, suspension, limitation, or reduction of the clinical privileges of a physician for *more than 30 days*; or
- b) acceptance of the surrender or restriction of clinical privileges by a physician *while under investigation*

by the hospital or health care entity relating to possible incompetence or unprofessional conduct, or *in return for not conducting such an investigation or proceeding*; or

c) when the hospital or health care entity has denied privileges to a physician applicant, or grants privileges more limited than those requested, if that denial or limitation was based on a professional review action and related to professional competence or conduct.

The hospital or health care entity must report this information to the state licensing board within 15 days of the date the final action was taken by its governing body, and the state licensing board must forward the information to the Data Bank within 15 days of its receipt. (Hospitals filing these federal reports with the state board of medical examiners will have satisfied their reporting requirements under state law as well.)

**3. Medical malpractice payments:** Any person or entity, e.g., individual physicians or an insurance company, that makes a *payment* (including deductibles, but excluding a waiver of a bill) of *any amount* on behalf of a licensed physician as a result of a *written* claim or judgment must report that information *simultaneously* to the Data Bank and to the state licensing board within 30 days of the date payment is made. However, malpractice payments made solely on behalf of a hospital or clinic, as opposed to one or more physicians, need not be reported. (For cases with periodic payments, it appears as though the first payment made after the Data Bank becomes operational will trigger this requirement.) Payments made in response to arbitration and other means of dispute resolution are also reportable. Any person or entity failing to report



this required information is subject to a civil monetary penalty of up to \$10,000 for each payment made, even if the terms of the settlement stipulate confidentiality.

**4. Society membership actions:** Professional societies of physicians *that engage in professional review activity through a formal peer review process for the purpose of assuring quality health care* must report related adverse membership actions to the Data Bank, if the adverse action taken lasts for longer than 30 days. Professional review action is defined as an action or recommendation of a health care entity a) taken in the course of professional review activity; b) based on the professional competence or professional conduct of an individual physician, dentist, or other health care practitioner that affects or could adversely affect the health or welfare of a patient or patients; and c) that adversely affects or may adversely affect the clinical privileges or membership in a professional society. Theoretically, actions taken against a physician based on technical or administrative problems unrelated to the health or welfare of patients need not be reported.

## Accessing the Data

### Physicians

Every physician may periodically request a copy of his or her Data Bank file at no charge. By law, physicians are supposed to receive notice each time a report is submitted to the Data Bank under their names.

### Hospitals

Every hospital *must* request information from the Data Bank when hiring medical staff or when a physician applies for medical staff membership or clinical privileges, as well as once every two years while the physician is on the medical staff or has clinical privileges. Hospitals *may* also request information from the Data Bank at any time they deem necessary. Because interns and residents are considered trainees, hospitals are not required to query the Data Bank about them unless they also work outside the hospital's training program.

State licensing boards, health care entities that provide health care services and have a formal peer review process, and professional societies that have a formal peer review process *may* also request information from the Data Bank. "Health care entity" has been defined broadly under the regulations and could include HMOs, IPAs, PPOs, ambulatory care centers, medical groups, and other similar organizations. A plaintiff's attorney or an unrepresented plaintiff who has filed a professional liability action or claim against a hospital and specifically named physician(s) may access the Data Bank for information regarding a specific physician named in the action, *only if* there is evidence that the *hospital failed* to make the mandatory queries from the Data Bank regarding the physician(s) named in the action or claim. Further, the information obtained from the Data Bank can only be used with respect to the action or claim against the hospital, not the physician.

The fee for each request for information from the Data Bank is \$2; individual physicians may request their own files at no charge.

## Physician Concerns

As with any legislative or regulatory change, there are many uncertainties that will become more clear as time goes by. Individual physicians and clinics should be aware of some of the issues that have been raised to date. Although the statutory requirements are quite rigid, there are ways physicians and clinics can help assure they are treated fairly within the mandates of the law. Some of the issues that may concern physicians include:

**1. Mistakes in the information contained in the Data Bank:** The idea that sensitive information is being gathered into a national data bank is enough to raise serious concerns. The possibility that false or misleading data could be introduced certainly adds to those concerns, and it would be both naive and unrealistic to assume that all the information submitted to the Data Bank will be accurate. Because the information contained in the Data Bank is considered permanent, and no provisions have

been made to expunge or delete data after a set time period, the initial accuracy of the report is critical. Of chief concern to the physician community is the process for disputing and/or correcting erroneous information. To *dispute* information, physicians have 60 days from the time the Data Bank mails them a copy of a report to notify the Data Bank and initiate the following process:

- sign the Practitioner Notification Document received from the Data Bank to inform the Data Bank administrators of the disagreement and request that the report be entered into a "disputed" status;
- describe in writing on the Practitioner Notification Document the reason(s) for the disagreement with the report (e.g., incorrect or incomplete information);
- return the document to the National Practitioner Data Bank, P.O. Box 6048, Camanillo, CA 93011-6048, or by certified registered mail to NPDB, 5151 Camino Ruiz, Mail Drop E-102, Camanillo, CA, 93012.

• send a written notice to the *reporting entity* (e.g., hospital, clinic, licensing board) informing them of the disagreement and the basis for it, and attempt to resolve the dispute with the reporting entity.

If the reporting entity has already corrected or voided the disputed report before the physician disputed it, the physician should receive an Improper Dispute Notification Form, and the original report will be corrected or deleted from the physician's file. Further, if the original report is corrected or voided as a result of a physician-initiated dispute, the Data Bank will send a Report Verification Document and possibly a Response to Disputed Notification Document to the physician and to all other queriers who received the original report.

However, if the dispute between the reporting entity and the physician continues, and the reporting entity does not revise the disputed information, the secretary of Health and Human Services will, *upon request*, review the written information submitted by the physician and

the reporting entity and will determine whether the report is correct or incorrect. If the information is determined to be incorrect, it will be corrected. If it is determined that the original report and information were accurate, they will be filed with an explanation from the HHS secretary regarding the basis for the decision. The physician will be permitted to file a very brief statement with the Data Bank describing the disagreement, and all parties (including the physician, the reporting entity, and any queriers) will be informed of the dispute's resolution.

Given the complexity of the dispute process and the potential for harm, it is extremely important that physicians pay close attention to the accuracy of the information sent to the Data Bank. It is crucial that physicians and clinics do everything possible to avoid filing inaccurate reports. For example, it would be wise to investigate the procedures each hospital administration plans to implement for filing reports and querying the Data Bank. Which staff people will have the responsibility for filing these reports? How will the accuracy of submitted information be verified? Will the medical staff be directly involved with filing these reports? Physicians also must carefully review any mail they receive from the NPDB and respond accordingly.

**2. Breaches of confidentiality:** Although the law provides that the information contained in the Data Bank is confidential and intended for authorized entities only, it would not be unduly cynical to assume that it is only a matter of time before the Data Bank reports are made available to anyone who wants access to the information. For example, the Public Citizen Health Research Group, founded in 1972 by consumer advocate Ralph Nader and directed by Sidney Wolfe, M.D., has already called for changes to the law that would provide direct consumer access to this information. Moreover, although the American Medical Association was successful in having language inserted that provides limited direct access by a plaintiff's attorney, access remains an issue, since

a physician can (and probably will) request his or her own data file, making the document potentially subject to discovery by other parties. At the very least, it's entirely possible that certain entities, such as insurance companies, may circumvent the process by simply requesting or requiring that individual physicians obtain their reports and forward them directly to the company.

Finally, it remains unclear which health care entities can access the Data Bank directly, and how much scrutiny the government will apply in allowing organizations access. Technically, any health care entity requesting physician files will need to obtain an ID number, but it remains unclear how the NPDB will verify the legitimacy of these local health care entities. It may fall to individual physicians to monitor this access. The groups potentially interested in the sensitive data being gathered appear to be varied and limitless, which leads directly to the next concern, interpretation of the data.

**3. Interpretation of the data:** Again, as with other government activities that involve the collection and dissemination of sensitive provider data (e.g., the Health Care Financing Administration's hospital mortality data), the potential exists for inaccurate or inappropriate conclusions to be drawn about the quality of the individual physician or the profession as a whole. Malpractice payments provide an obvious example. The fact that there is no minimum dollar threshold for reporting payments has led many people to speculate that physicians will be more inclined to litigate fully and aggressively all malpractice claims. The result would undoubtedly be an increase in professional liability premiums and prolonged legal disputes. On the other hand, the insurance companies often dictate when and/or whether to settle a case, so the individual physician may not have any control over the information being reported anyway.

Furthermore, if malpractice data are made available to consumers, the public may be alarmed by the number of malpractice claims filed against physicians in the United States and

may make erroneous assumptions about the state of the health care delivery system. As practicing physicians know so well, a malpractice claim does not necessarily equate with incompetence or negligence. Moreover, certain specialties or areas may have a higher incidence of claims as a result of treating higher-risk cases or other factors. The data base will be seriously flawed if it does not make distinctions between cases of documented malpractice or incompetence and the variety of other adverse actions or claims.

The concept of a minimum threshold for the reporting of malpractice payments is being studied further (with a report due in two years), and the law may, ultimately, be revised. Nevertheless, the concern about how the information being held in the Data Bank is *interpreted* by the parties obtaining access to it is important and should be addressed by concerned physicians.

## Conclusion

The issues discussed in this article do not exhaust the list of potential physician concerns related to the establishment of the National Practitioner Data Bank. Nor is this article intended to stress only the negative without also mentioning the positive aspects of a government project that is intended to assure better access to quality health care nationally. The intent of this article is simply to note that while the objectives of the National Practitioner Data Bank are laudable, the practicing physician should be aware of the provisions contained in the law and take them seriously to help ensure a Data Bank that contains accurate and appropriate information.

For more information about the National Practitioner Data Bank, physicians can call the NPDB toll-free Help Line at 1-800/767-6732 or contact Minnesota Medical Association's Office of General Counsel at 612/378-1875.

MM

*Kristin Larson is the Minnesota Medical Association's general counsel.*





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# Successful Long-term Investing

John M. Murphy, C.F.A., C.P.A., J.D.

**T**he key to successful investing requires a focus on three questions: 1) which investment classes should be included in your portfolio? 2) how much of your portfolio should be allocated to each investment class? and 3) which securities should be selected within each investment class?

Many people devote much time and effort to choosing particular stocks or bonds. However, history shows that an investor's profit will be most affected by the percentage of funds allocated to the various investment classes, not the choice of individual securities. This article summarizes the characteristics of the primary investment classes available in today's marketplace.

## Cash Equivalents

A cash equivalent investment is essentially a short-term loan between the investor and the issuer of the cash equivalent security. Examples of cash equivalents include bank savings accounts, U.S. Treasury bills, short-term certificates of deposit, and money market funds. With all of these investments, the issuer of the debt agrees to pay interest to the investor and to return the principal amount of the debt to the investor.

Due to the short-term nature of these investments and the relative ease with which an investor can access the funds in a cash equivalent investment, cash equivalents are considered to be very "liquid" investments. Cash equivalent investments such as money market funds and bank accounts provide investors with a source of cash for daily living and unanticipated needs. Cash equivalents can also be used as a means of accumulating funds before they are invested or as a temporary depository for money that has been

withdrawn from other investments during times of economic volatility.

The primary risks associated with investing in cash equivalents are inflation risk and opportunity risk. Inflation risk is the risk that your

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**"Investors should focus on the rates of return provided by their entire portfolios, not just the pieces."**

---

spending power will fall. For example, the average interest rate on federally insured savings accounts is 5.25 percent. Assuming that an investor's marginal tax rate is 39%, the after-tax yield on the savings account is 3.2 percent. With an annual inflation rate of 5%, the "real" return will be a negative 1.8 percent. Opportunity risk results from forgoing potentially higher investment returns by having your money invested in cash equivalents when it could be invested in other types of investments.

## Bonds

Similar to cash equivalent securities, a bond is a loan from the investor to the issuer of the bond. Bonds are a longer-term investment than cash equivalents, with terms ranging from one to 30 years. The issuer of the bond is obligated to pay the investor regular interest payments and to repay the principal amount of the loan at maturity. Examples of bond investments include U.S. Treasury notes

and bonds, certificates of deposit issued by banks, corporate bonds, and municipal bonds.

Interest earned from state and local bonds, called municipals, is exempt from federal income tax. Debt issued by the U.S. Treasury and municipalities in individual states generate interest that is generally exempt from state income taxes.

The risks associated with investing in bonds include default risk, interest rate risk, and liquidity risk. Default risk is the risk that the bond issuer won't pay you back the interest or principal. There's virtually no default risk in U.S. government bonds or savings bonds. Generally, the biggest default risk is in junk bonds—high-risk bonds issued by entities with precarious finances.

With a long-term investment in a bond, you take a chance that the market value of your bond will fall. If market interest rates rise, other investors will mark down the value of your older fixed-rate bond if new bonds pay more. If market rates fall, the market value of your bond will increase. Generally, the more time before a bond matures, the greater the price swings: a 1-point rise in market interest rates will reduce the price of a \$10,000 five-year Treasury bond by \$400, and take \$1,000 off a 30-year Treasury bond. If you hold a bond until it matures, you'll get the full face value. But in the meantime, the price can change dramatically. This risk is known as interest rate risk.

Liquidity risk is the risk of not being able to access your money instantly, or having to pay a penalty to do so. For example, if you cash in a bank CD before it matures, you'll pay a penalty of a few months' interest. If you decide to sell a corporate or municipal bond that is not actively



traded in the investment markets, the selling price may be less than you expect due to the limited market for the security.

### Common Stocks

Investments in common stock represent ownership of a company. Like any business owner, stockholders share in the company's successes and problems. If the company performs well, the value of the common stock will increase, and the investor will reap significant investment returns. Historically, returns for stock investments have exceeded returns generated by investments in bonds and cash equivalents. In addition, investments in stocks have done a better job of keeping pace with inflation than investments in bonds or cash equivalents.

There are a number of strategies for investing in common stocks. These strategies can be classified into two primary categories: capital growth and income. Capital growth strategies include investing in companies that 1) are smaller in size, 2) have low price-to-earnings ratios, or 3) are expected to show large earnings increases. These strategies are generally considered to be more aggressive, entail larger risks, and hold the potential for higher investment returns.

A more conservative approach to investing in stocks is to purchase stocks that pay significant dividends to their shareholders. This type of stock is known as an income-producing stock, in contrast to capital growth stocks, which are likely to pay little or no dividends to their shareholders.

Market risk should always be considered when evaluating an investment in stocks. Market risk is the risk that the stock market as a whole may go down in value. Regardless of the profitability and prospects of the company in which you own stock, if the entire stock market drops in value, it is likely that the market price of your stock will decrease. On October 19, 1987, stock prices fell by more than 20 percent in one day. Although the stock market has now exceeded the levels prior to October 19, 1987, many investors incurred serious in-

vestment losses.

The rates of return shown in Table 1 indicate that the stock market's return was far in excess of the inflation rate as measured by the consumer price index. Long-term investors have been rewarded for incurring stock market risks, including sharp year-to-year volatility. For shorter periods, results varied from the long-term averages. Holders of Treasury bonds and Treasury bills stayed ahead of inflation by much narrower margins.

### International Stocks

Almost two-thirds of the value of the world's stocks originates outside the United States. Many of these economies are growing more rapidly than the U.S. economy, and they present significant investment opportunities. As shown in Table 2, returns of foreign stocks historically have outperformed the U.S. market.

Another advantage of investing overseas is diversification. A diversified portfolio gives you the opportunity to enhance your overall return while reducing risk, because trends in foreign investment markets generally do not correlate with U.S. market trends. While one or more markets at any time may be moving in the

same direction as the U.S. market, longer-term correlations are low. In any given year, several foreign stock markets are likely to outperform the U.S. market.

One of the most important differences between domestic and foreign investing is the impact of currency translation. Because foreign exchange rates fluctuate constantly with changes in each currency's supply and demand, currency translation can increase or decrease the value of the investment even if the security's price remains unchanged. While a strengthening dollar can dampen short-run returns to U.S.-based investors, the local market performance of foreign stocks has historically overshadowed currency fluctuations in determining total returns. In the longer run, fundamental problems such as budget and trade deficits, rising inflation, and the growing debtor status of the U.S. suggest that the dollar will not perform particularly strongly.

### Real Estate

The U.S. investment real estate market is larger than the stock and bond market combined. One study concluded that in the mid-1980s, real estate constituted about 55 percent

Table 1

#### Historical Investment Returns

|                                   | 63 Years | 5 Years | Best Year | Worst Year |
|-----------------------------------|----------|---------|-----------|------------|
| Price inflation (C.P.I.)          |          | 3.1%    | 3.5%      |            |
| Treasury bills (cash equivalents) | 3.5%     | 7.1%    | 14.7%     | 0.0%       |
| Long-term treasury bonds          | 4.4%     | 15.0%   | 40.4%     | -9.2%      |
| Stocks (S&P 500)                  | 10.0%    | 15.3%   | 54.0%     | -43.0%     |

Source: Ibbotson Associates, Inc.

Table 2

#### Foreign vs. U.S. Stock Returns (periods ending 12/31/88)

|                                     | 1 Year | 3 Years | 5 Years | 10 Years |
|-------------------------------------|--------|---------|---------|----------|
| Europe, Asia, Far East (EAFE) Index | 28.9%  | 40.1%   | 36.0%   | 22.4%    |
| U.S. stocks (S&P 500 Index)         | 16.5%  | 13.3%   | 15.3%   | 16.3%    |

Source: Frank Russell International

of the major U.S. investment assets, while stocks and bonds made up less than 45 percent. The investment real estate classification includes hotels, shopping centers, industrial property, undeveloped land, office buildings, apartment buildings, and farmland.

Over the past 50 years, investments in real estate have generated attractive investment returns. In addition, real estate is one asset class that has historically kept pace with inflation. Because real estate investments are subject to risks and valuation factors different from those of stocks and bonds, investing in real estate offers significant diversification benefits to an investor's portfolio.

Investments in real estate can be accomplished through direct ownership, limited partnerships, or REITs (real estate investment trusts). Real estate investments involve significant liquidity risks that should be carefully analyzed before making an investment decision.

### ***Diversification and Asset Allocation***

Most investors should hold at least some stocks, bonds, and cash in their portfolios. In addition, investors should focus on the rates of return provided by their entire portfolios, not just the pieces.

In general, nondiversified investors assume far greater risks than those who diversify. Broad diversification can dramatically reduce a portfolio's risk. Diversification does not just mean holding a variety of stocks. To gain the maximum benefit of diversification, you should diver-

sify not only among investment classes but also across countries.

The allocation of your portfolio to these investment classes should be selectively varied over time in accordance with economic trends, profit opportunities, and most importantly, the characteristics that make your personal situation unique.

### ***Implementing Your Investment Plans***

A number of alternatives are available when deciding how to implement your investment strategy. Physicians with the requisite time and interest may decide to purchase individual stocks and bonds through a stockbroker. Investors who generate their own investment ideas and perform their own research can save considerable commission expenses by executing their investment transactions through a discount broker.

Physicians who are receiving investment advice from a stockbroker or commission-based financial

planner should carefully consider the investment recommendations they receive. At a minimum, the investment performance of the funds invested by a commission-based adviser should be reviewed regularly.

As an alternative to purchasing individual stocks and bonds, the use of no-load (i.e., no commission) mutual funds offers several significant benefits to investors. These advantages include lower costs, broad diversification, liquidity, and historical investment performance, which can be easily verified.

It would be wise to look into using a professional money manager for retirement plans and individual portfolios exceeding \$500,000. Professional money managers provide objective advice and will design a portfolio tailored to the client's specific investment objectives. **MM**

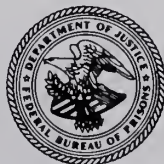
*John Murphy is a vice president with Windsor Financial Group, a registered investment advisory firm based in the Twin Cities.*

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## MMA Urges Postponement of Balance Billing Cap

*Richard B. Tompkins, M.D.*

**T**he Minnesota Medical Association has gained powerful allies in our fight to postpone the 125 percent cap on balance billing for Medicare. At the American Medical Association (AMA) Annual Meeting in June, we won AMA support for this objective. We have also enlisted the support of Sen. Dave Durenberger and of representatives of the Health Care Financing Administration.

Now, we need your help. We must convince Congress, despite opposition from senior citizen organizations, that the 125 percent cap would deal a devastating blow to many Minnesota physicians and their patients, particularly in rural areas.

This complicated issue was introduced with Congress' 1989 budget reconciliation act. The provision limits balance billing to 125 percent of the local prevailing fee or a physician's maximum allowable actual charge (MAAC), whichever is less, for all Medicare services. This cap is scheduled to take effect January 1, 1991—one year before the resource-based relative value scale's five-year phase-in period begins.

It is ironic that this bill, designed by Congress to reform Medicare payments through the resource-based relative value scale (RBRVS), should include a provision that runs directly counter to its main goal. The RBRVS is intended to increase physician payments for traditionally undervalued services—such as primary care services—and to correct geographic reimbursement inequities. In Minnesota, where two of our three Medicare payment districts rank near the bottom nationally for Medicare reimbursement, we eagerly await the reforms promised by the new RBRVS fee schedule.

But, meanwhile, for many medi-



**"The 125 percent cap would deal a devastating blow to many Minnesota physicians and their patients."**

cal services, the 125 percent cap will lower the same payments that the RBRVS reforms will subsequently raise. The immediate effect of the reform bill will be to lower reimbursement for physicians who, while maintaining their Medicare patients' access to care, are already struggling to cover their overhead costs. The AMA has projected that it could take some physicians up to six years under the RBRVS to recover an appropriate level of compensation even if the 125 percent rule does not go into effect.

Let's consider the effect the 125 percent cap would have on payment to one small multispecialty clinic in southern Minnesota (see the table on page 43). Compare the physician's payment for an established patient's office visit under the current Medicare payment system and with the proposed cap. (The CPT code for this service, 90050, is the most common code in the Medicare system.)

Under the current system, the

physician receives \$13.24 less than the regular charge for a 90050 office call with a Medicare patient. The physician's regular charge for the service is \$39.00, while the MAAC, the physician's total payment, is only \$25.76. Of this amount, Medicare pays \$10.80, or 80 percent of the Medicare-approved charge of \$13.50, and the patient pays \$14.96. That's bad enough.

But, now notice how the physician's payment drops if a cap is imposed on balance billing. The cap limits the physician's total payment to just \$16.88 (125 percent of the Medicare-approved charge of \$13.50). The physician receives \$22.12 less than the regular charge for an office visit with a Medicare patient and \$8.88 less than under the current system.

Some physicians are teetering on the financial edge, just covering their costs of practice. How will they be able to stay in practice if the 125 percent cap is implemented? We already have a crisis in access to health care in rural Minnesota. The 125 percent cap could turn it into a disaster.

Fortunately, there is still time to convince Congress that the proposed cap will exacerbate our health care access problem and that it runs counter to the intent of the RBRVS payment reform. Act now, while the three Medicare authorizing committees—the House Ways and Means, Energy and Commerce, and Senate Finance committees—have time to consider our position. They still have the power to change the balance billing provision. Call or write your senators and representatives to Congress. Tell them how the cap would affect your practice, and urge them to support the following:

1. Postpone the cap on balance billing.

Table

*A small, southern Minnesota multispecialty clinic's payment for an office visit by an established patient (CPT code 90050)*

|                          | Payment                |                |
|--------------------------|------------------------|----------------|
|                          | Current System         | 125% Cap       |
| Fee-for-service charge   | \$39.00                |                |
| Medicare-approved charge | \$13.50                | \$13.50        |
| Medicare 80% payment     | 80% of \$13.50=\$10.80 | \$10.80        |
| Patient's payment        | <u>\$14.96</u>         | <u>\$6.08</u>  |
| <b>Total payment</b>     | <b>\$25.76 (MAAC)</b>  | <b>\$16.88</b> |
|                          |                        |                |
| % FFS charge received    | 66.1%                  | 43.3%          |
| % MAAC charge received   | —                      | 65.5%          |

2. Raise the floor for Medicare reimbursement for primary care services to 80 percent of the national average prevailing charge. (The Physician Payment Review Commission recently recommended a floor of 75

percent to Congress.)

3. Target relief for under-reimbursed Medicare payment districts such as southern and northern Minnesota, if budget reconciliation does not allow either of the above. **MM**

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## People and Places Making Medical News

### M M A

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#### MMA Board Chair

The Minnesota Medical Association Board of Trustees in July elected Andrew J. K. Smith, M.D., Minneapolis, chair of the Board. Smith replaced Paul S. Sanders, M.D., the MMA's new chief executive officer.

Smith, a board-certified neurological surgeon with Minneapolis Neurological Surgeons, Ltd., is president of the staff at Methodist Hospital and a member of the Methodist Hospital Board of Trustees. He has served on the MMA Board of Trustees since 1988 and is a member of the *Minnesota Medicine* Advisory Committee. He is chair of the MMA Long Range Planning Committee, a member of the MMA House of Delegates, and a member of the Minnesota Physicians Foundation Board of Directors, whose fund-raising committee he chairs. Smith's past MMA involvement includes serving on many MMA committees and chairing the Communications Committee.

### P e o p l e

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#### MMIC President & CEO

Midwest Medical Insurance Holding Company and its subsidiary, Midwest Medical Insurance Company, appointed David P. Bounk as president and chief executive officer effective August 1, 1990.

Bounk, a native of Missouri, had previously been executive vice president and chief operating officer of the Missouri Medical Insurance Company since 1984. Bounk succeeds Douglas K. Beach, who retired in June.

#### MedCenters Director

George Isham, M.D., was named medical director of MedCenters Health Plan of Minneapolis in July. As medical director of MedCenters, Isham will oversee medical services offered by the health plan's providers, direct its quality assurance programs, and act as liaison between the HMO, the medical community, and the purchasers of MedCenters services.

Before joining MedCenters, Isham was executive director for University Health Care, Inc., and president and chairman of the board of U-Care, HMO, Inc., in Wisconsin.

#### Health One's Kreykes to R.I. Post

William Kreykes, former executive vice president and chief operating officer of the Acute Care Division of Health One Corporation in Minneapolis, accepted a position as president and chief executive officer of the Rhode Island Hospital of Providence, a major academic medical center with more than 700 beds. He will assume his new duties October 1. He left Health One August 31 after nine years of overseeing as many as 21 hospitals and homes in five states.

Kreykes was for seven years the administrator and chief executive officer of Hennepin County Medical Center in Minneapolis, and for four years the executive director of Vanderbilt University Hospital in Nashville before coming to the former Health Central system, which merged with the Health One Corporation in 1987. He was elected to a one-year term as chair of the Minnesota Hospital Association in 1989.

#### HCMC Ortho Chief Retires

Ramon Gustilo, M.D., chief of Orthopedics for 19 of his 25 years at Hennepin County Medical Center (HCMC), announced his retirement as chief, effective upon

the naming of a successor. Gustilo plans to continue to practice at HCMC in the Infectious Disease Program and as medical director for the Orthopaedic Learning Center, HCMC reports.

#### HCMC's Quality Manager

Gary Fifield, M.D., has been appointed to Hennepin County Medical Center's recently established position of associate medical director for Quality Management. Fifield, who has been a member of HCMC's Pediatrics staff since 1977, recently completed a nine-month Bush fellowship during which he studied health care quality issues. HCMC reports that Fifield will work half time in the new position and will continue to see patients in the Pediatrics and Emergency departments.

#### Health Department Director

The Minnesota Department of Health hired Linda Sutherland in July as director of its Health Resources Division. Sutherland had been an assistant commissioner at the State Planning Agency since 1985 and a policy analyst for the Minnesota Office of Human Services. She replaced Michael Tripple as the division's director.

#### Service to Humanity Awards

St. Paul surgeon Davitt A. Felder, M.D., will receive one of two 1990 Service to Humanity Awards presented by the United Hospital Foundation at a dinner September 8. Each year, the foundation recognizes two individuals associated with United Hospital who have demonstrated dedication and leadership in improving the health and welfare of St. Paul-area residents. Felder shares the honor this year with community leader J. Stanley Hill, a United Hospital supporter.

Felder joined the medical staff



at United Hospital 36 years ago. A pioneer in vascular surgery, he was the hospital's chief of staff in 1976 and chaired the Surgery Department in 1981. He served as the hospital's medical director of quality assurance for four years.

#### **Fairview President**

Jon B. Olson has been appointed president of the Fairview Foundation and vice president of Fairview Hospital and Healthcare Services. In this dual capacity, Olson is responsible for all fund development activities within the corporation and for external programs of community relations, mission outreach and effectiveness, and church relations.

Before joining the Fairview Foundation, Olson served as president and chief executive officer of the Saint Joseph Medical Center Foundation in Burbank, California.

#### **NEJM Editor to Retire**

Arnold S. Relman, M.D., will retire as editor-in-chief of the *New England Journal of Medicine* in June 1991. Relman disclosed his decision to retire at a July Committee on Publications meeting of the Massachusetts Medical Society, which owns and publishes the *New England Journal of Medicine*. Relman was appointed editor of the journal in 1977 and became editor-in-chief in 1988.

#### **P l a c e s .**

##### **UMD Addiction Studies Center**

University of Minnesota, Duluth (UMD) officials announced in August that UMD plans to open Minnesota's first center for addiction studies this fall. The Campus Center for Addiction Studies will research all forms of addiction—such as chemical, food, gambling, and sex addictions, according to sociology professor J. Clark Laundergan, who was named the center's director. Although the center will start with no budget and no full-time staff, Laundergan

said several University of Minnesota professors in Duluth and the Twin Cities have already asked to conduct research for the center.

Future research may include a scientific study of why the "Minnesota model" for treating chemical dependency works so well, attempts to identify biological indicators for addiction, and a study of whether "addictive personalities" actually exist.

##### **UMD-Soviet Medical Exchange**

The University of Minnesota, Duluth has also established the nation's first medical exchange with the Soviet Union, UMD officials announced in July. UMD and the State University of Petrozavodsk have agreed to an exchange of research scientists, physicians, and medical students. The purpose of the exchange, according to the Duluth-Petrozavodsk Medical Exchange Committee, is to open the door for medical education exchanges and to foster good will and cooperation between U.S. and Soviet physicians and scientists.

Through the exchange, Americans will visit the Soviet Union twice before next spring. Scientists from UMD's hypothermia laboratory plan to deliver a series of seminars in Petrozavodsk and Leningrad this November, and a group of American medical students is expected to visit in February 1991.

##### **New Hospital in River Falls**

Provided it can raise \$750,000 in community funds, the River Falls (Wisconsin) Area Hospital will be replaced by a new \$8.9 million, 30-bed hospital and clinic built by the hospital's parent company, Health One Corporation of Minneapolis. The building, which will lie just east of River Falls, is slated to open September 1992, with groundbreaking ceremonies as early as this month. The new medical complex will improve the variety and quality of services to the community, according to Gene Jonas, M.D., River Falls' chief of medical staff.

##### **Good Marks for Vets Home**

The Minnesota Department of Health, after a four-day inspection in July, gave the Minnesota Veterans Home in Minneapolis a good report card on health care and management, demonstrating that the home has made great strides in solving problems that had plagued it for years. Health department inspectors found only four minor rule violations, none of which was as serious as rule violations noted by inspectors last year. In 1987, health inspectors found 36 violations.

##### **Low HIV Rate at Ramsey**

St. Paul-Ramsey Medical Center tied with six other hospitals for the lowest rate of HIV infection among patients admitted for an unrelated illness, according to a federal study of 26 hospitals nationwide. Hospitals in the northeastern United States had rates ranging from nine to 78 HIV-infected patients per 1,000, compared with St. Paul-Ramsey's rate of one per 1,000. Although the hospital with a rate of 78 per 1,000 was not identified in the report, it is believed to be in the New York City area. St. Paul-Ramsey was the only Minnesota hospital included in the study.

##### **Cancer Research Grant**

The University of Minnesota School of Public Health has received a five-year, \$7.6 million grant from the National Cancer Institute to study risks and prevention of colon polyps and large bowel cancer.

The studies will be conducted by a newly formed Cancer Research Prevention Unit, which also will be funded by the grant. The School of Public Health departments of epidemiology, biostatistics, and human development and nutrition, as well as the College of Agriculture and the medical school, will collaborate on the study. John Potter, associate professor of

epidemiology, will be the unit's principal investigator.

### Best HMO Coverage

The August 1990 issue of *Consumer Reports* ranked Blue Cross and Blue Shield of Minnesota's Aware Gold individual plan the best in the nation. According to a study of more than 70 individual health coverage plans nationwide, the Aware Gold individual plan outpaced all others overall in terms of cost, services, and benefits. The company's Aware Care individual plan ranked eighth in overall quality and first in affordability among the top 33 plans, according to the magazine.

### M-MSMC's Plymouth Clinic

In a joint physician-hospital venture, Metropolitan-Mount Sinai Medical Center last month opened Plymouth Medical, a multispecialty community clinic on West Highway 55 in Plymouth. The new clinic has specialists in orthopedics, ob/gyn, mammography, ultrasound, internal medicine, oncology, gastroenterology, cardiology, urology, pulmonology, general and vascular surgery, and reproductive endocrinology and infertility.

## Socioeconomics

### Hospitals' Annual Report

Six of 23 Twin Cities hospitals reported losses in 1989, and several others posted small profits, according to Minnesota Hospital Association statistics. Metropolitan-Mount Sinai Medical Center of Minneapolis reported the greatest losses—\$18.2 million. On the other end of the spectrum, Abbott Northwestern and Hennepin County Medical Center in Minneapolis and HealthEast, which owns five St. Paul hospitals, fared rather well financially. Only hospitals that had received one-time cash settlements last year had a better year financially than in 1988, which was a recovery year after a disastrous 1987.

### Park Nicollet, HMO Settlement

Park Nicollet Medical Center and MedCenters Health Plan of Minneapolis settled a three-year dispute in July over how much the HMO should pay Park Nicollet. After going to arbitration, MedCenters, which contracts with Park Nicollet for 55 percent of its 265,000 members, agreed to pay Park Nicollet a 13 percent annual rate increase for 1988, 1989, and 1990.

Also as part of the settlement, Park Nicollet will give up several of its nine seats on the 15-member MedCenters board, depending on its percentage of MedCenters' enrollment. Representatives of other clinics that contract with MedCenters will fill the vacant seats.

Finally, to ensure reasonable rates, a new formula will be used to determine how much MedCenters will pay Park Nicollet for enrollee services.

### Medicare Generous to a Fault

U.S. taxpayers are footing at least a \$400 million tab each year in Medicare costs that should instead be covered by private insurers, according to Michael Mangano, deputy inspector general with the Health and Human Services Department. Laws enacted in the early 1980s require people covered by employer-provided health insurance as well as Medicare to submit medical bills to their private insurer before submitting them to Medicare. Frequently that does not happen, Mangano said. During July hearings of the Senate permanent subcommittee on investigations, he and other investigators blamed the problem on private insurance companies for improperly shifting costs to Medicare and on physicians and hospitals for submitting claims to Medicare when they should be sent first to private insurers.

### More Paperwork for Docs

Physicians are now required to fill out all Medicare claims, according to a new federal law that went into effect September 1. The law is designed to lift the burden of filing claims off the elderly, who previously had to fill out their own claims in some instances. Before the law, physicians were already required to fill out about 80 percent of claims taken on assignment, but in reality, many doctors filled out unassigned claims as well. It is estimated that, nationwide, less than 5 percent of all claims were filed by the patient. Initially, the Health Care Financing Administration will be lenient toward physicians who violate the law, but, eventually, violations may lead to a maximum \$2,000 fine.

### No Disability Benefits Hearings

The Social Security Administration announced in late July that it will not hold hearings this month for people seeking disability benefits. Officials ordered the suspension of the hearings, which also review Medicare appeals, because of a lack of funds and anticipate resuming the hearings at the onset of the new fiscal year October 1. It is believed to be the first time the disability benefits hearings have been cancelled for want of funds. Social Security pays monthly disability benefits to 4.2 million people: 2.9 million disabled workers and their spouses and children.

### Births to Unwed Mothers

Sixty-two percent of black infants in the United States are born to unmarried women, compared with 24 percent among all races, according to the Centers for Disease Control in Atlanta. Among white women, the rate was 17 percent in 1987, the latest year for which figures are available. In 1983, 59 percent of black births were to single mothers, compared with 13 percent of white births. CDC officials said the escalating rates are a signal of possible health problems because, in general,



unmarried mothers are often poor, and adverse pregnancy outcomes are correlated with poverty.

## Legal Affairs

### Fetal Burial Law

An appellate court ruled in August that an unenforced Minnesota law requiring aborted fetuses to be either cremated or buried in a "dignified" manner is constitutional. The 1987 law, which was blocked from enforcement by a court order obtained from Planned Parenthood, will now likely go into effect sometime in October or November.

In a close decision, the Eighth U.S. Circuit Court of Appeals said the law is "not a model of clarity" and may lead to some compliance difficulties for abortion clinics. The court's decision said, "Rather than regulating abortion, this statute acknowledges the existence of abortion and regulates an issue related to abortion."

Planned Parenthood and other abortion providers now dispose of fetuses through the sanitary sewer system. Planned Parenthood officials said the decision will add to the cost and psychological burden of abortions and will lead to further abortion restrictions. The court rejected the notion of added psychological pressure, saying women don't need to be consulted about or aware of the disposal method.

The court's decision overturned a ruling last year by U.S. District Judge David Doty of Minneapolis that found the law unconstitutionally vague.

### Who Owns the Tissue?

In a case with wide implications for medical research, the California Supreme Court ruled in July that a patient doesn't own property rights to his or her own body tissues that may be used to further medical research. But the court added that physicians have a duty to inform the patient if researchers have an

economic or personal interest in using such tissues, and it said that if this bond of trust is broken, the patient may sue for breach of that duty. The decision applies only to California, but researchers around the country have followed the case closely.

The ruling stems from a lawsuit in which a leukemia patient sued his surgeon and medical researchers after they used the patient's spleen cells to develop a valuable anti-cancer drug. He contended that he never granted permission for them to use his tissue and claimed a right to share in profits made from the drug. The defendants said that scientists commonly use discarded tissues for research, and if they needed to obtain permission from every patient, medical progress would be thwarted.

## Innovations

### Kidney Disease Advancement

Researchers have developed an experimental treatment that dramatically stops scarring from glomerulonephritis in laboratory rats and shows promise for application in humans. Dr. Wayne A. Border and colleagues at the University of Utah in Salt Lake City and the La Jolla Cancer Research Foundation in California have identified the protein TGF- $\beta$  (transforming growth factor beta) as having an important role in promoting scar tissue in the kidneys of rats. Their treatment works by blocking the protein's ability to damage the kidneys.

Glomerulonephritis affects 200,000 Americans annually. If successful, the test treatment would be the first major therapeutic advance against the disease in more than 30 years.

### Gene Therapy Approval

A federal advisory committee in late July approved two different experiments in gene therapy. The National Institute of Health's Recombinant DNA Advisory Committee voted 16-1 to approve

a therapy to treat children suffering from the extremely rare adenosine deaminase deficiency (ADA) and unanimously approved a therapy to help patients with advanced melanoma. William F. Raub, acting director of the National Institute of Health, is expected to approve the projects as well.

The ADA therapy uses gene splicing techniques to insert a copy of the gene that produces the enzyme lacking in ADA patients into the child's blood. Researchers hope the spliced gene will help produce the enzyme needed to make the child's immune system function properly. Fewer than 20 children worldwide suffer from ADA.

In the melanoma treatment, scientists will insert a gene into a patient's tumor infiltrating lymphocytes. The gene will cause cells to produce tumor necrosis factor, a powerful hormone that eliminates tumors by cutting off their blood supply. Scientists at the National Cancer Institute have learned how to remove the lymphocytes from the patient, replicate them a billionfold, and return them to the patient's body with the newly inserted gene. The treatment will be performed on patients in an advanced stage of the cancer who otherwise would be expected to live about four months.

## Medical Research

### Effective Osteoporosis Drug

In one of the largest studies of women with osteoporosis, the relatively inexpensive, easily obtained drug etidronate was shown to reduce osteoporosis and cut the women's risk of vertebral fractures by half. Nelson B. Watts, M.D., of the Emory University School of Medicine in Atlanta and colleagues studied 429 women who had one to four vertebral fractures. They found that the women's spinal bone density increased after taking etidronate. The study was published in the July 12 *New England Journal of Medicine*.

## *A Calendar of Continuing Medical Education Courses*

Provided through the MMA Medical Education Subcommittee on CME Resources. For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; 612/378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

### SEPTEMBER 1990

Sept. 6-8 **Teaching Geriatric Medicine in Family Practice** University of Minnesota; Sheraton Midway, St. Paul, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 7 **3rd Annual Clinical Management of Osteoporosis** Hennepin County Medical Center, Hennepin Faculty Associates; location to be announced. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Sept. 7-8 **Mayo Surgical Symposium** Mayo Clinic/Mayo Foundation; Mayo Clinic, Rochester, MN. CONTACT: Rita Kunz, Mayo Medical Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Sept. 8 **Pediatric Pulmonology for the Primary Care Practitioner** Minneapolis Children's Medical Center; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Medical Education Department, Minneapolis Children's Medical Center, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-5884.

Sept. 10-14 **53rd Annual Course: Radiology 1990, Abdominal Imaging** University of Minnesota; Willey Hall, University of Minnesota, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 11 **Prescribing Controlled Substances** Minnesota Medical Association; Sheraton Park Place, Minneapolis, MN. CONTACT: Karen A. Tourdot, Minnesota Medical Association, 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414; 612/378-1875.

Sept. 13 **HIV** Health One; Sioux Valley Hospital, New Ulm, MN. CONTACT: Donna Hill, Medical Supervisor, Health One, 2810 57th Avenue North, Minneapolis, MN 55430-2496; 612/574-7857.

Sept. 13 **Lasers in General Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis,

MN. CONTACT: Cathy Elmstrom, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Sept. 13-14 **Neonatal Resuscitation Program** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Joyce Riedi, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-6923.

Sept. 13-15 **Orthopedic Surgery Course: The Female Athlete** University of Minnesota; Holiday Inn Downtown, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 13-15 **Emergency/Critical Care Medicine for the '90s** Health One Emergency Services; Radisson Hotel South, Bloomington, MN. CONTACT: Sue Hance, Health One CME, 2810 57th Avenue North, Minneapolis, MN 55430; 612/574-7895 or 800/347-3627.

Sept. 14 **Pain Management Strategies for Primary Care** Hennepin County Medical Center; Pillsbury Auditorium, HCMC, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Sept. 14 **Northwestern Pediatric Society's Annual Fall Meeting** Northwestern Pediatric Society; Holiday Inn International, Bloomington, MN. CONTACT: Lorrie Holmgren, Minnesota Medical Association, 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414; 612/378-1875.

Sept. 14-15 **Medical Directors Conference** University of Minnesota; place to be determined. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 14-15 **Pediatric Epilepsy: A Primary Care Physician's Perspective** MINCEP Epilepsy Care and Gillette Children's Hospital; Omni Northstar Hotel, Minneapolis, MN. CONTACT: Katherine Glunze, Gillette Children's Hospital, 200 University Avenue East, St. Paul, MN 55101; 612/229-3870.

Sept. 14-15 **Laser Laparoscopic Cholecystectomy** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Sept. 14-15 **Reproductive Medicine** St. Paul-Ramsey Medical Center, Ramsey Clinic, and Ramsey Foundation; Holi-





HENNEPIN COUNTY MEDICAL CENTER/HENNEPIN FACULTY ASSOCIATES

# CALENDAR OF MEDICAL EVENTS

**September 7, 1990**

**Third Annual  
CLINICAL MANAGEMENT  
OF OSTEOPOROSIS**

**Co-Chairmen**  
**Robert Berkseth, M.D.**  
**Charles Smith, M.D.**  
**Minneapolis Metrodome Hilton**  
**Minneapolis**

**September 14, 1990**

**PAIN MANAGEMENT STRATEGIES  
FOR THE PRIMARY CARE  
PHYSICIAN**

**Miles Belgrade, M.D., Chairman**  
**Hennepin County Medical Center**  
**Minneapolis**

**October 5-6, 1990**

**HCMC LIPID PROGRAM  
"Clinical Perspective on Blood Lipids"**

**Burt Sharp, M.D., Chairman**  
**Hyatt Regency Hotel**  
**Minneapolis**

**October 12, 1990**

**Sixth Annual  
ADVANCES IN GERIATRIC  
MEDICINE**

**Co-Chairmen**  
**Robert Breitenbucher, M.D.**  
**Patrick Irvine, M.D.**  
**Hennepin County Medical Center**  
**Minneapolis**

**October 18-19, 1990**

**Thirteenth Annual  
TRAUMA AND CRITICAL CARE  
SEMINAR**

**Co-Chairmen**  
**Brian Mahoney, M.D.**  
**Arthur Ney, M.D.**  
**Hennepin County Medical Center**  
**Minneapolis**

**November 16, 1990**

**PSYCHOPHARMACOLOGY  
AND THE PRIMARY CARE PHYSICIAN**

**Stuart Thorson, M.D., Chairman**  
**Hennepin County Medical Center**  
**Minneapolis**



*For further information, contact the Office of Academic Affairs  
701 Park Avenue, Suite 4512, (Mail Code #865), Minneapolis, MN 55415; 612/347-2075*

day Inn East, St. Paul, MN. CONTACT: CME, St. Paul-Ramsey Medical Center, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Sept. 14-16 **Surgery Medical Clinics for Family Practice** University of Minnesota; Grand View Lodge, Brainerd, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 15 **Pediatric Pulmonology for the Primary Care Practitioner** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Kathy Ingerson, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-5884.

Sept. 19-21 **Infertility: Advancements in Laboratory & Clinical Procedures** Mayo Medical Laboratories; Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

Sept. 21 **Accepting the Challenge: Meeting the Standard of Care for Diabetes in the 1990s** Duluth Diabetes Center, Duluth Clinic, and St. Mary's Medical Center; Fitger's Spirit of the North Theatre, Duluth, MN. CONTACT: Thomas E. Elliott, M.D., 400 East Third Street, Duluth, MN 55805; 218/722-9364, ext. 755.

Sept. 21-22 **Tumor Immunobiology in Head and Neck Cancer** University of Minnesota; Radisson University Hotel, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Sept. 28-30 **15th Annual Fall CME Seminar** Minnesota Academy of Physician Assistants; Riverwood Conference Center, Monticello, MN. CONTACT: John F. O'Brien, R.P.A.-C., 2103 Cohansey Boulevard., Roseville, MN 55113; 612/487-1374.

## OCTOBER 1990

Oct. 3 **Annual A. B. Baker Dinner Lecture** Hennepin County Medical Center, Hennepin Faculty Associates; Marriott City Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Oct. 3 **Ethical Dilemmas in the Care of the Terminally Ill** Health One; Sioux Valley Hospital, New Ulm, MN. CONTACT: Donna Hill, Medical Supervisor, 2810 57th Avenue North, Minneapolis, MN 55430-2496; 612/574-7857.

Oct. 3-6 **53rd Annual Course: Principles of Colon and Rectal Surgery** University of Minnesota; Mayo Memorial Auditorium, University of Minnesota, Minneapolis, MN. CONTACT: Pat Morandi, University of Minnesota Office of CME, Box 202, UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Oct. 4-5 **Annual Forensic Science Seminar** Hennepin County Medical Center, Hennepin Faculty Associates; Hennepin County Medical Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Oct. 4-5 **Pediatric Update for Primary Care Physicians** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, MN. CONTACT: CME, St. Paul-Ramsey Medical Center, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Oct. 5 **Ventricular Arrhythmias** University of Minnesota Medical School; Holiday Inn Metrodome, Minneapolis, MN. CONTACT: Pat Morandi, Registrar, Office of Continuing Medical Education, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Oct. 5 **Current Management of Low Back Pain** Abbott Northwestern Hospital; World Trade Conference Center, St. Paul, MN. CONTACT: Cathy Elmstrom, CME Office 14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Oct. 5-6 **Lipid Program: Clinical Perspective on Blood Lipids** Hennepin County Medical Center; Hyatt Regency Hotel, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Oct. 6 **3rd Annual Current Topics in Laboratory Medicine: Phlebotomy** Mayo Medical Laboratories; St. Luke's Hospital, Kansas City, MO. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

Oct. 6 **Current Trends in Ophthalmology** Metropolitan-Mount Sinai Medical Center; Hotel Sofitel, Minneapolis, MN. CONTACT: Mary Strazz, Course Coordinator, Phillips Eye Institute; 612/336-5309.

Oct. 7-8 **Advanced Phacoemulsification Course** Phillips Eye Institute and Health One; Phillips Eye Institute, Minneapolis, MN. CONTACT: Mary Strazz, 2215 Park Avenue South, Minneapolis, MN 55404; 612/336-5309.

Oct. 8 **ACLS Certification** St. John's Regional Health Center; St. John's Regional Health Center, Red Wing, MN. CONTACT: Jane Gisslen, R.N., 1407 West 4th Street, Red Wing, MN 55066; 612/388-6721.

Oct. 8-9 **Building for the New Decade** Minnesota Perinatal Organization; Sunwood Inn, St. Cloud, MN. CONTACT: Barb Midtaune, MPO Coordinator, 3300 Oakdale Avenue North, #3E, Minneapolis, MN 55442; 612/520-1570.

Oct. 10-12 **Internal Medicine Review 1990: Infectious Diseases, Rheumatology, Gastroenterology** University of Minnesota Medical School; Mayo Memorial Auditorium, Minneapolis, MN. CONTACT: Pat Morandi, Box 202



# Health One Medical Education

Sept 13

"HIV" presented by John Weiser, M.D., Sioux Valley Hospital, New Ulm, MN, 12:00 noon

Sept 13-15

EMERGENCY MEDICAL SERVICES REGIONAL CONFERENCE - Radisson South - Minneapolis, MN

Oct 3

ETHICAL DILEMMAS IN THE CARE OF THE TERMINALLY ILL" presented by Evelyn Van Allen, Network Coordinator for Minnesota Medical Association and member of Metropolitan-Mount Sinai Ethics Committee; and Kenneth Dedeker, M.D., Vice President/Medical Director of Quality Assurance for Health One and Medical Director for Preferred One - Sioux Valley Hospital, New Ulm, MN, 6:00 p.m. - 8:00 p.m.

Oct 6

THIRD ANNUAL HEALTH ONE PRACTICE OPPORTUNITY FAIR - a complimentary, full day symposium for residents and clinical fellows in multiple specialties - United/Children's Conference Center, St. Paul, MN, 8:30 a.m. to 2:00 p.m.

Oct 6

FOURTEENTH ANNUAL CURRENT TRENDS IN OPHTHALMOLOGY - Hotel Sofitel, Bloomington, MN - Sponsored by Phillips Eye Institute (PEI).

Oct 7-8

ADVANCED PHACOEMULSIFICATION COURSE, Richard Lindstrom, M.D., Chair - Phillips Eye Institute, Center for Teaching and Research

Oct 11

"HERPES VIRUS SEROLOGY" presented by Charles Horowitz, M.D.  
- Sioux Valley Hospital, New Ulm, 12:15 p.m.

For further information, contact the Medical Education Office, Medical Affairs Division, Health One (612) 574-7895 or call toll-free 1-800-343-DOCS.

**Health One**  
Medical Affairs Division

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# YOCON<sup>®</sup> YOHIMBINE HCl

**Description:** Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

**Action:** Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

**Indications:** Yocon<sup>®</sup> is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

**Contraindications:** Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

**Warning:** Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

**Adverse Reactions:** Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.<sup>1,2</sup> Also dizziness, headache, skin flushing reported when used orally.<sup>1,3</sup>

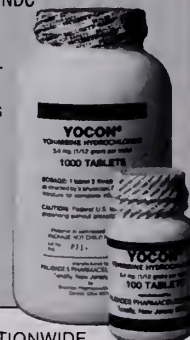
**Dosage and Administration:** Experimental dosage reported in treatment of erectile impotence.<sup>1,3,4</sup> 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.<sup>3</sup>

**How Supplied:** Oral tablets of Yocon<sup>®</sup> 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

## References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Oct. 12 **Annual Advances in Geriatric Care** Hennepin County Medical Center; Hennepin County Medical Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55405; 612/347-2078.

Oct. 12 **Current Clinical Cardiology: 9th Annual Jesse E. Edwards Lectureship** United Hospital; Conference Center, Heart & Lung Building, United Hospital, St. Paul, MN. CONTACT: Eleanor Waldrup, 333 North Smith Avenue, St. Paul, MN 55102; 612/220-8558.

Oct. 12 **Brain, Behavior, and Biology: The Interface** St. Paul-Ramsey Medical Center; World Trade Conference Center, St. Paul, MN. CONTACT: CME, St. Paul-Ramsey Medical Center, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Oct. 12-13 **Lasers in Gynecology: A Basic Seminar** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office 14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Oct 12-13 **12th Annual Adolescent Medicine & Health Care Conference: Adolescents & AIDS** University of Minnesota Medical School; Holiday Inn Downtown, Minneapolis, MN. CONTACT: Pat Morandi, Box 202 UHMC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Oct. 12-13 **Front Line Neurology: Primary Care Management of Patients with Neurological Problems** Abbott Northwestern Hospital; Marriott City Center, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office 14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Oct. 13 **Interventional Radiology, Surgery, and Medicine: New Perspectives for the Primary Care Physician** Abbott Northwestern Hospital; Radisson Plaza Hotel, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office 14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Oct. 13 **2nd Annual Health One Oncology Conference** Health One; Marriott City Center Hotel, Minneapolis, MN. CONTACT: Sue Hance, Health One CME, 2810 57th Avenue North, Minneapolis, MN 55430; 612/574-9895 or 800/347-3627.

Oct. 15 **ACLS Certification** St. John's Regional Health Center; St. John's Regional Health Center, Red Wing, MN. CONTACT: Jane Gisslen, R.N., 1407 West 4th Street, Red Wing, MN 55066; 612/388-6721.

Oct. 15-18 **Silver Anniversary Annual Orthopedic and Trauma Seminar** Hennepin County Medical Center; Mar-

riott City Center Hotel, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55405; 612/347-2078.

Oct. 18-19 **13th Annual Trauma and Critical Care Conference** Hennepin County Medical Center; Hennepin County Medical Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55405; 612/347-2078.

Oct. 18-19 **Drawing the Line: Defining Basic Level of Health Care** University of Minnesota Medical School; Cowles Auditorium, Hubert Humphrey Center, West Bank University of Minnesota, Minneapolis, MN. CONTACT: Pat Morandi, Box 202 UHMC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Oct. 19 **Annual Directors of Medical Education (DME) Conference** Hennepin County Medical Center; Hennepin County Medical Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55405; 612/347-2078.

Oct. 19-20 **Cutaneous Laser Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office 14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Oct. 20 **4th Annual Tutorial in Pediatric Cardiology for the Primary Practitioner** The Children's Heart Clinic, P.A.; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Harold Katkov, M.D., The Children's Heart Clinic, 2545 Chicago Avenue, Suite 106, Minneapolis, MN 55404; 612/871-4660.

Oct. 22-26 **Bulimia Nervosa: Intensive Cognitive Behavioral Group Psychotherapy** University of Minnesota Medical School; Coffman Memorial Union, University of Minnesota, Minneapolis, MN. CONTACT: Pat Morandi, Box 202 UHMC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Oct. 25-26 **Annual Autumn Seminar Obstetrics and Gynecology** University of Minnesota Medical School; Holiday Inn Downtown, Minneapolis, MN. CONTACT: Pat Morandi, Box 202 UHMC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Oct. 26-27 **Laser Laparoscopy Cholecystectomy** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Tim Schuh, CME Office 14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Oct. 27 **Frederick C. Goetz Symposium: Diabetes in the '90s** University of Minnesota Medical School; Hyatt Regency Hotel, Minneapolis, MN. CONTACT: Pat Morandi, Box



202 UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

# NOVEMBER 1990

Nov. 1-2 **3rd Annual Medical Intensive Care Conference** Hennepin County Medical Center; Hennepin County Medical Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Nov. 2 **E. T. Bell Fall Pathology Symposium** University of Minnesota Medical School; Radisson University Hotel, Minneapolis, MN. CONTACT: Pat Morandi, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Nov. 2 **Non-Pharmacologic Treatment of Cardiac Arrhythmia** University of Minnesota Medical School; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Pat Morandi, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Nov. 2-3 **3rd Annual New Ulm Fall Seminar** Sioux Valley Hospital; Holiday Inn, New Ulm, MN. CONTACT: Sue Hance, Health One CME, 2810 57th Avenue North, Minneapolis, MN 55430; 612/574-7895 or 800/347-3627.

Nov. 3-4 **The Minnesota Society of Neurological Sciences**

The Minnesota Society of Neurological Sciences; Sheraton Midway Hotel, St. Paul, MN. CONTACT: Lisa Deminsky, Executive Secretary, 4225 Golden Valley Road, Minneapolis, MN 55422; 612/588-0661, ext. 286.

Nov. 7-9 **Laboratory Diagnosis of Bone and Mineral Disorders** Mayo Medical Laboratories; Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 800/562-1787.

Nov. 8 **Topics in Pediatric Emergency Medicine** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Kathy Ingerson, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-5884.

Nov. 9 **Arthritis Update for Primary Care Physicians** Metropolitan-Mt. Sinai Medical Center and Health One; Orthopaedic Learning Center, Metropolitan-Mt. Sinai Medical Center, Minneapolis, MN. CONTACT: Sue Hance, Health One CME, 2810 57th Avenue North, Minneapolis, MN 55430; 612/574-7895 or 800/347-3627.

Nov. 9-10 **Pediatric Advanced Life Support (PALS) Course** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Kathy Ingerson, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-5884.

## Stress Testing: A Practical Approach Wednesday, Sept. 19, 1990

A day-long program designed to update the primary care physician in performing and interpreting stress tests in the office or community hospital setting.

### Features:

1. Small class size (fewer than 13 registrants)
2. Observations and interpretation of a stress test and a volunteer patient
3. Workshop discussion of stress EKGs from participant's practice and Ramsey's files
4. Comprehensive 60-page course outline and workbook
5. 4.5 hours AMA Category I CME credit
6. Lunch and refreshments

Faculty is Richard Madlon-Kay, M.D., Director of Noninvasive Lab, Ramsey Clinic.

To register, contact Robin Rainford, 800-328-1571 or 221-2000. A \$100 registration covers the course fee, materials and lunch. **Registrations close Sept. 12.** The course will be held at St. Paul-Ramsey Medical Center, 640 Jackson, St. Paul, Minnesota 55101.

## "Current Trends in Ophthalmology" 14th Annual Phillips Eye Institute Ophthalmology Symposium



Richard P. Carroll, M.D., Course Chair

Hotel Sofitel  
Minneapolis, Minnesota

**Saturday, October 6, 1990  
8:00 a.m.-4:30 p.m.**

### Guest Faculty

Gary N. Foulks, M.D.

Douglas D. Koch, M.D.

Christine C. Nelson, M.D.

For further information contact  
Mary Strazz, Course Coordinator,  
Phillips Eye Institute (612) 336-5309

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## Physician Opportunities and Miscellaneous Listings

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**Twenty-nine Physician Multispecialty Clinic** located in desirable east-central Wisconsin location is seeking board-certified or board-qualified orthopedic surgeon to round out its services. Lab, X-ray, excellent hospital. Liberal guarantee and benefits. If interested, contact: D.F. Sweet, M.D., Fond du Lac Clinic, S.C., 80 Sheboygan Street, Fond du Lac, WI 54935. (R)

**Family Physician/Emergency Room:** Full-time salary working weekends, primarily emergency room. Flexibility available. Falls Medical Center, PA, 105 Shorewood Drive, International Falls, MN 56649. Please contact: A. Johnson, M.D., or A. Marc Gorden, M.D., at 218/283-9431 for more information. (R)

**Family Physician** wanted to join four physicians, one nurse practitioner, FP group practicing in two offices in Pine River and Pequot Lakes. Competitive salary. No ob. No HMOs. Rural area with outdoor recreational opportunities. Rotate hospital visits, emergency call; adequate free time. Call or write: C.R. Pelzl, M.D., Pine and Lakes Clinics, PO Box 88, Pine River, MN 56474; 218/587-4416. (R)

**Physician: GP/FP/EM** seeks locations to cover on weekends as locum tenens. Board-certified. FP. Lic. Minn. Write: Box 35132, Minneapolis, MN 55436. (R)

**Family Physician:** Dynamic 13-physician, three-office, single-specialty practice in northwest Minneapolis suburbs seeking additional associate, BE/BC; ob available. Competitive salary, full benefits, reasonable call and hospital rounds schedule. Contact: Dr. Ken Kephart, Northwest Family Physicians; 612/476-6776. (\*R)

**Wausau Medical Center** is seeking BE/BC individuals in the following specialties: cardiology, dermatology, family practice, infectious disease, obstetrics/gynecology, pediatrics, and rheumatology. Modern clinic facility located

across the street from modern, 300-bed hospital. Full partnership in three years. Easy access to lakes, woods, and mountains. Write (including CV) to: D.K. Aughenbaugh, M.D., Medical Director, Wausau Medical Center, 2727 Plaza Drive, Wausau, WI 55401. (R)

**Johnson & Falls Search Associates** represents new practice opportunities locally and nationally. Working exclusively in the area of physician search, we are committed to expanding your professional options while meeting our clients' needs. There are no fees to candidates. For a thorough, confidential search, send CV or call: Liz Johnson or Pat Falls, Johnson & Falls Search Associates, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0237. (R)

**Bemidji, Minnesota:** Excellent opportunities for well-trained physicians. We are seeking board-certified/board-eligible physicians in orthopedic surgery, family practice, ophthalmology, pediatrics, and otolaryngology to join a young 24-physician multispecialty group practice located in northern Minnesota. Competitive salary guarantee plus incentive first year and excellent benefits. An excellent opportunity for a physician to enjoy practice in the center of hunting, fishing, and clear air. Please respond with CV to: C.C. Lowery, Administrator, Bemidji Clinic-MeritCare, 1233 34th Street NW, Bemidji, MN 56601; 218/751-1280. (R)

**Outstanding Opportunity for a BE/BC Family Physician** to join a progressive medical community with eight physicians oriented to family practice. Details will be given by contacting: Dr. Tim Schmitt, Wadena Medical Center; 218/631-1360, or Jim Lawson, Administrator, Tri-County Hospital, Wadena, MN 56482; 218/631-3510. (R)

**Waseca, Minnesota:** Family practice physician to join four family practitioners. Population 8,000. One hour south of Burnsville Center; lakes; industry. Salary negotiable. Clinic-adjacent hospital. Ample free time to enjoy family life. Contact: James W. Dey, M.D., or Ruth Hawker, 501 North State Street, Waseca, MN 56093; 507/835-3110. (R)

**Exciting Pediatric Opportunity:** Full or part time. East-metro practice offering stimulating combination of primary care, teaching, and consultative services. Excellent salary and benefits. Inquiries to: Ruth at 612/777-8211. (R)

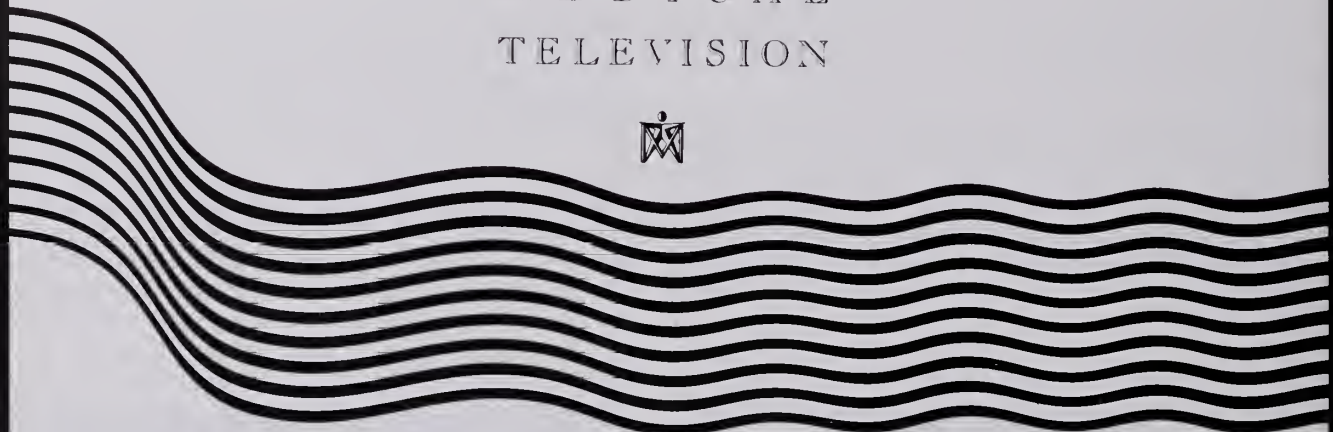
**Locum Tenens** physicians needed. Physicians and locations coordinating services. Write to: Margaret Carse, MED Professional Resource Search, PO Box 35215, Minneapolis, MN 55435. (10/89-R)

**Wholesale Life Insurance**—No front load and no surrender charge. Example: 35-year-old ns male, \$500,000. First-year premium—\$2,000. First-year guaranteed cash value—



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**St. Cloud**—Minnesota's fastest growing city—family practice physician, two pediatricians, two ob/gyns, BE/BC to join supportive primary care staff in a growing, successful, and innovative prepaid practice. New clinic facility. Full range of fringe benefits (competitive salary, liberal vacation, two weeks' education leave, retirement fund, etc.). Contact: Physician Services, Central Minnesota Group Health Plan, 1245 15th Street North, St. Cloud, MN 56303; 612/253-5220. An equal opportunity employer. (R)

**Family Practice:** Physicians seeking a BE/BC family practice physician for the Norway, Michigan, service area. The physician would have the option of joining one of the existing practices and/or setting up his/her own practice. Anderson Memorial Hospital is a part of Dickinson County Hospitals and has a service-area population of over 45,000. Contact: Dr. Paul Hayes, Anderson Memorial Hospital, Main Street, Norway, MI 49870; 906/563-9243, or office 906/563-9255. 2-9/90

**Radiologist:** A three-physician radiology group is seeking a fourth radiologist with experience and interest in inter-

ventional radiology. Dickinson County Hospitals is a progressive, 126-bed, two-hospital system located in Iron Mountain, Michigan's Upper Peninsula. We have a service-area population of over 45,000. Contact and/or send résumé to: Drs. Specht/Shampo/Manzano, Radiology Department, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4565.

2-9/90

**Mankato:** FP partner to join four board-certified family physicians, ages 31-41, in fast-growing, full-range practice, includes ob. Population 40,000+. Seventy miles to Twin Cities. Four colleges nearby. 90+ physicians on hospital staff. Academic appointment available. Call: Tony Giefer, M.D.; 507/387-8231. (1/90-R)

**Family Physicians:** Well-established south suburban Minneapolis family practice group seeks associates part/full time to staff day clinic. Excellent call schedule, salary, and fringe benefits. Also seeking locum tenens to staff PT/FT Urgent Care Centers and/or day clinic. Contact: Administration, Family Physicians, P.A., 612/435-4125, or send inquiries to Suite 100, 14050 Nicollet Avenue South, Burnsville, MN 55337. (\*9/89-R)

**Family Practice—Hospital-Sponsored Clinic Opportunity:** Dynamic growth-oriented hospital in beautiful north-central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administra-

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tive burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus, and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435; 612/835-5123. (R)

**Urgent Care/Primary Care** physicians for over 90 group positions in metropolitan Phoenix/Tucson, Arizona. Excellent compensation/partnership opportunities. Other quality positions nationwide. Send CV or call: Mitch Young (MM), PO Box 1804, Scottsdale, AZ 85252; 602/990-8080. (\*1/90-R)

**Orthopedic Surgeon:** A progressive, 126-bed, two-hospital system is seeking an orthopedic surgeon to join an established practice in the Iron Mountain area of Michigan's Upper Peninsula. Must be BE/BC. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Dr. Roberts will guarantee \$250,000 plus malpractice insurance, office space, CME, vacation, and relocation expenses. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4500. \*2-10/90

**BE/BC Family Practice and Internal Medicine Physician:** Excellent opportunity to join well-established, progressive 20-physician multispecialty group located in an economically sound community of 20,000 (drawing area of 30,000), 65 miles south of the Twin Cities. Full membership after one year. Competitive salary and fringe benefit package. Contact: Ed Durst, M.D., or Terry Tone, Administrator, 134 Southview, Owatonna, MN 55060; 507/451-1120.

(2/90-R)

**Dermatologist, Psychiatrist, Allergist, Internal Medicine, Family Practice:** A progressive, 126-bed, two-hospital system is seeking the above specialties to establish practices in the Iron Mountain area of Michigan's Upper Peninsula. Must be BE/BC. Located 100 miles north of Green Bay, Wisconsin. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Diagnostic capabilities include a CT scanner, CO<sub>2</sub> laser, and a fully staffed special diagnostic department. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4500. \*2-10/90

**Positions Available in Family Practice, Internal Medicine, Obstetrics/Gynecology, General Surgery, and Pediatrics:** 28-physician multispecialty clinic seeking additional physicians in FP, IM, Ob/Gyn, GS, and Peds departments. Interstate Medical Center offers a competitive salary, comprehensive benefits, and the support and team ap-



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Worthington Medical Center, P.A.  
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Phone: 507-372-2921

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St. Cloud Medical Group, a 22 physician Multi-specialty Group, is now recruiting BC/BE physicians in the following specialties:

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proach of a multispecialty environment. Red Wing is a midsized community along the bluffs of the Mississippi River only 40 miles from the Minneapolis/St. Paul area. Area highlights include an excellent school system, a growing cultural environment, water recreation, skiing, and an active business climate. Red Wing has all the benefits of a metro area in a serene setting. For additional information, please call or send CV to: Don Bruns, M.D., Highway 61 West, Red Wing, MN 55066; 612/388-3503. (\*3-11/90)

**Forest Lake Doctor's Clinic** is seeking a BC/BE family physician, pediatrician, ob/gyn, and internist to join 10-physician multispecialty group. Located 25 miles north of Minneapolis-St. Paul, in progressive community, with excellent schools, many beautiful lakes, recreational activities, golf, fishing, boating, skiing. Local hospital directly across street. Contact: Dr. Harvey J. Frank or Dr. Doug Sill, 121 SE 11th Avenue, Forest Lake, MN 55025; 612/464-7100. (4/90-R)

**Internist** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809. (\*3/90-R)

**Family Practitioner** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B.

Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809. (\*3/90-R)

**Family Practice, Internal Medicine, Pediatrics, Urology, Obstetrics and Gynecology, Dermatology, and Orthopedics** practice opportunities available at the Faribault Clinic. The Faribault Clinic is a multispecialty group practice of 14 physicians. Faribault is located 50 miles south of Minneapolis on I-35. For more information contact: Ray W. Wood, M.D., or Ken Smith, Administrator, 924 NE 1st Street, Faribault, MN 55021; 507/334-3921. (4/90-R)

**Family Physician:** Tired of call? Want predictable hours? Full-time physician needed to work three days per week in our outpatient family practice clinics. Salary plus bonus and benefits including malpractice insurance. Contact: Todd Patton, M.D., or William Wenmark, CEO, c/o NOW Care Medical Centers, 13031 Ridgedale Drive, Minneapolis, MN 55343; 612/593-9010 (5/90-R)

**Sanibel Island for Rent:** 2 BR condo, by day or week, on beautiful Sanibel Island, Florida. Home of famous wildlife refuge. Swim, shell, or just relax. Extensive bike paths, two Island golf courses. \$445 per week through 12/15/90, then \$775 per week through season. Call Toni, 612/869-1404. 7-12/90

**Pediatrician:** 115-physician multispecialty clinic in the Fox River Valley of northeastern Wisconsin desires a BC/BE

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**Administrator**  
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pediatrician to join department of 17 BC/BE pediatricians. Two-year guarantee plus comprehensive benefit package offered. The community offers a superb recreational, cultural, and family environment in which to practice. For information please call or write: Roger Rathert, M.D., La Salle Clinic, 411 Lincoln Street, Neenah, WI 54956; 414/727-2702.

2-9/90

**Family Practice:** Excellent salaried practice opportunity for BC/BE family physician with Northland Medical Associates of Morgan Park. The community, located in the western end of Duluth, offers outstanding quality of life: desirable family environment, excellent educational institutions, renowned trout streams, skiing, hunting, boating, and dog sledding. Full-time and part-time positions open; flexible scheduling potential. Excellent compensation package, production incentive, if desired. Send CV to: Susan Streitz, Northland Medical Associates of Morgan Park, 1150 88th Avenue West, Duluth, MN 55808. Or call collect: 218/626-2775.

\* 1-9/90

**Downtown Office Space for Rent:** Physician in the Medical Arts Building, 825, wishes to sublet to another physician on a part-time basis for the purpose of sharing overhead expenses. Call: 612/370-0553.

(6/90-R)

**Mankato Clinic, Ltd.** is seeking BE/BC physicians in the following specialties: dermatology, invasive cardiology, ob/gyn, oncology/hematology, pulmonary medicine, vas-

cular surgery, family practice, pediatrics, and general internal medicine. The Mankato Clinic is a 43-doctor multi-specialty group practice in south-central Minnesota with a trade area population of +200,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information call: Roger Greenwald, Administrator, or Dr. B. C. McGregor, 507/625-1811, or write: 501 Holly Lane, Mankato, MN 56001.

(6/90-R)

**Ob/Gyn, Family Practice, Internal Medicine, Urgent Care:** Opportunities available for BC/BE physicians to join independent, multispecialty group with 10 clinics in the Minneapolis/St. Paul metropolitan area. Fee-for-service and prepaid patients, highly competitive earnings, excellent benefit package. Reply: Nancy Borgstrom, Aspen Medical Group, 1020 Bandana Boulevard West, St. Paul, MN 55108; 612/641-7185.

\*2-9/90

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**Ophthalmologist—Bemidji, Minnesota:** General ophthalmologist needed to join strong, established practice. High pathology, very active surgical practice. Fully staffed. Send responses to: Minnesota Medicine (842), 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414. 3-9/90

**General Surgeon:** 26-physician Twin City suburban primary care group (FP, ob/gyn, pediatrics, surgery, internal medicine) needs an additional surgeon. Excellent location, income, and benefits. Good opportunity for younger surgeon. Hospital 1.3 miles from office. Contact: Dr. Yelle, Dr. Brusven, or Mr. Moore at the Mork Clinic in Anoka; 612/421-3680. 3-9/90

**Pediatrician and Ob/Gyn:** Women and Children's Medical Center, an ob/gyn and pediatric specialty clinic located in St. Cloud, Minnesota, is looking for an obstetrician/gynecologist and a pediatrician. We have a staff of five obstetrician/gynecologists, four pediatricians, one pediatrician/adolescent medicine specialist, one pediatric allergist, and other allied health care providers. Our location includes in-house lab, mammography, and pharmacy. We offer competitive salary, excellent fringe benefits, and production

bonuses. Only one hour from the Twin Cities, our community has three colleges and one hospital and offers diverse cultural, educational, and sports opportunities. For more information call: Jon Dennis, M.D., M.P.H., Women and Children's Medical Center, P.A., 1520 Northway Drive, St. Cloud, MN 56303; 612/251-6832. 3-9/90

**Family Physician for Southwest Suburban Minneapolis:** BC/BE to join rapidly growing practice in Chaska, a rapidly expanding suburban Minneapolis community. Competitive salary, full benefits. Hospitals in Shakopee and Waconia. Provider for many health plans. Be prepared to be busy with the full spectrum of family practice. Contact: David Willey, M.D., or Betty Kuelbs, R.N., Valley Family Practice, 822 Yellow Brick Road, Chaska, MN 55318; 612/448/3303. 6-12/90

**Michigan—Ann Arbor Suburb:** Primary care specialists needed. Group-managed practice. Call one in three. First-year income guarantee, benefits, and paid malpractice. Call: Wanda Parker, Senior Associate, E.G. Todd Associates, 535 Fifth Avenue, Suite 1100, New York, NY 10017. Toll free: 800/221-4762. Collect: 212/599-6200. \*6-12/90

**Internal Medicine:** Minneapolis, Minnesota, suburban multispecialty group with seven internists is seeking a general internist with or without subspecialty interest. One-hospital practice, excellent salary and benefits pro-



gram. Board-certified/board eligible. Contact: Sim Gesundheit, M.D., 612/571-0457 or send CV to: Columbia Park Medical Group, 6200 Shingle Creek Parkway, Suite 480, Brooklyn Center, MN 55430. 2-9/90

**Wisconsin—Family Practitioner Needed** by progressive and growing group practice in west-central Wisconsin city of 55,000. Ninety miles from Minneapolis/St. Paul. Primarily prepaid practice with large component FFS. Highly competitive salary with excellent fringe benefits. Practice high-quality care in a good recreational area. Send CV to: Stuart Lancer, M.D., 1030 Regis Court, Eau Claire, WI 54701; 715/836-8552. \*2-9/90

**Ob-Gyn / Otolaryngology / Orthopedics / Cardiology / Family Practice / Pediatrics / Internal Medicine / General Surgery:** Several attractive opportunities in *Indiana*, *Wisconsin*, and *Michigan* (many on lakes) for BC/BE physicians. Contact: Bob Strzelczyk to discuss your practice requirements and these positions. *Strelcheck & Associates, Inc.*, 12724 North Maplecrest Lane, Mequon, WI 53092; 800/243-4353. \*2-9/90

**Tenant Representation:** We specialize in representing medical tenants in real estate negotiations for lease and sale. References available. Call: Michael J. Stanch, J.D., The Real Property Dept., for a free consultation at 612/894-2210. 2-9/90

**Orthopedic Surgeon:** Existing orthopedic practice with large patient base located within hospital (specialty center). Practice management provided with low overhead. Cross coverage plus guarantee contract. Community of 23,000 with 45,000 service area. Contact: Donald Brezicka, Administrator, St. Olaf Hospital, 300 8th Avenue NW, Austin, MN 55912; 507/437-4551. 2-9/90

**Family Physician or Internist** needed for rural community in southern Minnesota. Two hours from Minneapolis and one and one-half hours from Rochester. Contact: Susan Pemberton, Administrator, Wells Hospital, 400 4th Avenue SW, Wells, MN 56097; 507/553-3111. 3-10/90

**Pediatrician, Ob/Gyn, Family Practitioner, General Surgeon:** Growing 17-physician, multispecialty clinic in beautiful northwestern Wisconsin seeking BC/BE specialists. Attractive partnership opportunity. Come grow with us! Contact: Donald W. Clemens, Administrator, Indianhead Medical Group, Ltd., 1020 Lakeshore Drive, Rice Lake, WI 54868; 715/234-9031. 3-10/90

**Internist** with/without subspecialty interests, BC/BE to join 19-physician multispecialty group with five internists. Southeast Missouri rural city of 17,500. No PPO, HMO. Low taxes. Contact Administrator, Ferguson Medical Group, 1012 North Main Street, Sikeston, MO 63801; 314/471-0330. 3-10/90

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Send Curriculum vitae and references to Robert C. Montgomery, M.D., Chairman, Physician Recruitment, 737 Broadway, Fargo, ND 58123 or for more information call 1-800-437-4010.

**Family Practice, Pediatrics, Internal Medicine, Ob/Gyn, Orthopedic Surgeon,** BC/BE, to join 19-physician multi-specialty group. Southeast Missouri rural city of 17,500. No PPO, HMO. Low taxes. Excellent salary and fringe benefits. Contact: Administrator, Ferguson Medical Group, 1012 North Main Street, Sikeston, MO 63801; 314/471-0330. 3-10/90

**Endocrinologist—St. Cloud, Minnesota:** Opportunity available in a growing 30-physician clinic of specialists and subspecialists of internal medicine. Community has three colleges, excellent school system, and abundant recreational activities. Family living conditions are excellent! The St. Cloud Clinic is located in a new facility with access to the latest in medical technological developments. For more information about this position, please contact: Brad E. Currier, M.D., or Mark Murphy, Administrator, 1200 Sixth Avenue North, St. Cloud, MN 56303; 612/252-5131. 3-10/90

**BC/BE Family Physician:** Full time or part time. Progressive community clinic, competitive salary and benefits, ob optional. Contact: Gordon Lester, M.D., or Tom Yardic, Executive Director, West Side Health Center, (La Clinica), 153 Concord Street, St. Paul, MN 55107; 612/222-1816. 4-11/90

**LifeSpan Health Care Services Seeks Family Physicians** for Cambridge, MN, Crosby, MN, Grantsburg, WI, Hopkins,

MN, Lakefield, MN, Litchfield, MN, Minneapolis, MN, Monticello, MN, Springfield, MN, St. James, MN, Wayzata, MN, and Woodville, WI. For further information, contact: LifeSpan Health Care Services, 800 East 28th Street, Minneapolis, MN 55407; 612/863-4193. Ask for Jerry Hess. \*3-10/90

**Wisconsin:** Third BC/BE obstetrician/gynecologist needed to join stable, progressive, primary-care-based HMO/group practice in university town of 60,000 near Minneapolis-St. Paul. Excellent quality of life and outstanding recreational area. Competitive salary and fringe benefits. Contact: Stuart R. Lancer, M.D., Medical Director, Group Health Cooperative, PO Box 3217, Eau Claire, WI 54702-3217; 715/836-8552. \*4-11/90

**Phoenix, Arizona:** BE/BC family physician needed for established medical group. Practice located in a desirable high-growth area. Excellent compensation and benefit package. Send CV to: Minnesota Medicine (843), 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414. 12-7/91

**Family Practice / North Shore Lake Superior:** BE/BC family physician to join busy practice in primary care clinic of four family physicians with consulting internist, ophthalmologist, general surgeon, and orthopedic surgeon. Advantages of living in a small town while being only 22 miles from Duluth metro area. Contact: Lee Cohen or Steve Bjorum,

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**Family Physician:** Part-time positions staffing convenience care medical center. Competitive hourly salary plus malpractice insurance. Call or write: Bob Kantor, M.D., Grove Square Convenience Care, 13800 83rd Way, Maple Grove, MN 55369; home: 612/591-0437, work: 612/420-4279. 14-9/91

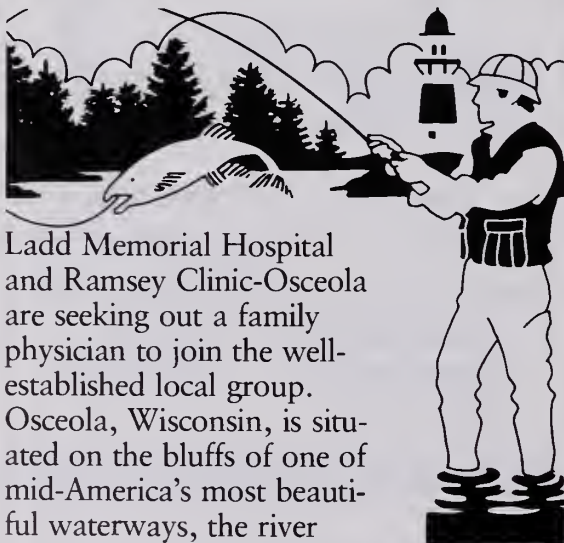
**Lake City, Minnesota:** Family physician BC/BE needed to join three other FPs in progressive growing practice on Lake Pepin/Mississippi River in southeastern Minnesota. Excellent first-year salary/benefits in a scenic community with multiple recreational opportunities. Contact: D.D.

Pflaum, M.D., 303 South Washington, Lake City, MN; 612/345-3318. (8/90-R)

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Ladd Memorial Hospital and Ramsey Clinic-Osceola are seeking out a family physician to join the well-established local group. Osceola, Wisconsin, is situated on the bluffs of one of mid-America's most beautiful waterways, the river St. Croix. This practice opportunity offers the perfect balance! For particulars, forward your curriculum vitae or contact: Loriesse A. Stoll, Director of Professional Services, Ramsey Clinic, 640 Jackson Street, St. Paul, MN 55101; or call collect — (612) 221-3067. *Ramsey Clinic*



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**General Medicine:** Position available with Cancer Detection Center at University of Minnesota. Clinic focus is on health risk screening and assessment. Hourly wage. Part-time flexible hours. No weekends. No call. Current Minnesota license required. For more information, call/write: Dr. Donald E. Stewart, Director, Box 99, University of Minnesota Hospital, Minneapolis, MN 55455; 612/625-6970. 2-10/90

**Pediatrician:** Gillette Children's Hospital is seeking a pediatrician who is a graduate of an accredited pediatric residency program in the United States anticipating board certification by 1992 to provide inpatient and outpatient pediatric care in a specialty hospital-based interdisciplinary

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**Family Practice / Urology / Orthopedic Surgery:** Dakota Clinic, Ltd., Wahpeton, North Dakota, seeking BC/BE physicians. The Wahpeton Clinic (a new facility as of April 1990) is currently staffed by 14 physicians serving a six-county area in three states. Beautiful Minnesota lakes district within 30 miles. Excellent fringe benefit package. Please contact: Corrine Romereim, Division Manager, 275 South 11th Street, Wahpeton, ND 58075; 701/642-2000. \*6-2/91

**Family Physician** to join medical staff of three family practitioners in well-established, growing clinic in central Minnesota along southern shore of beautiful Mille Lacs Lake. Excellent subspecialty support, progressive community hospital, diverse patient population. Guaranteed salary, excellent benefits. Call collect, 612/532-3154 or write Fred Haack, Mille Lacs Health System, 200 North Elm Street, Onamia, MN 56359. 6-2/91

**MDsearch** assists medical groups and hospitals in their recruiting efforts. For confidential information on opportunities in the Upper Midwest, send CV and/or call collect: Mary Jo Cordes, MDsearch, PO Box 21507, St. Paul, MN 55121; 612/454-7291. 12-8/91

**Cannon Falls:** Lease or buy established medical clinic building; partially furnished, including X-ray. Adequate for two physicians. Excellent hospital in community. Call: Dr. Klefstad, 507/263-3545. Write: Box 98, Cannon Falls, MN 55009. (9/90-R)

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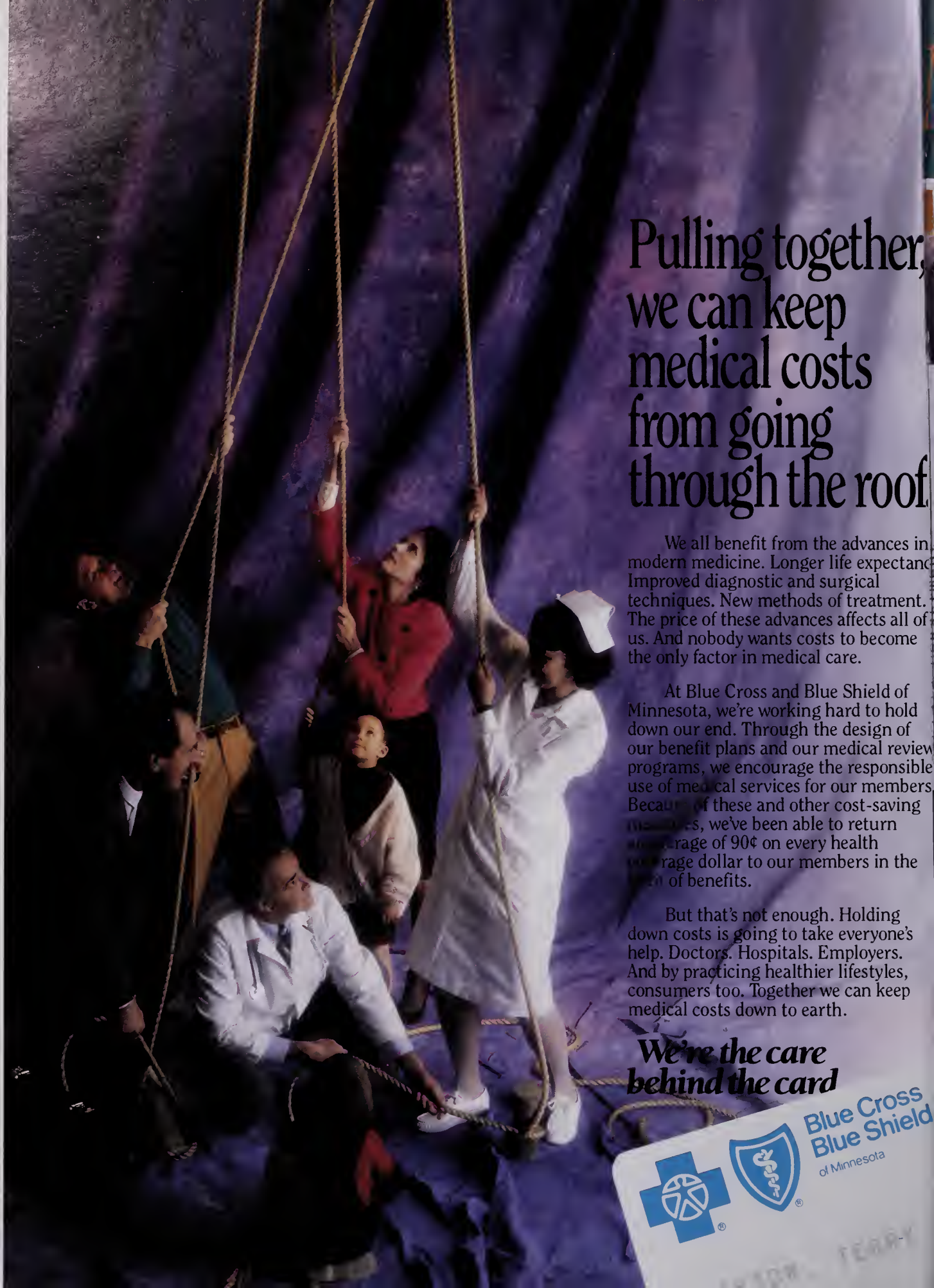
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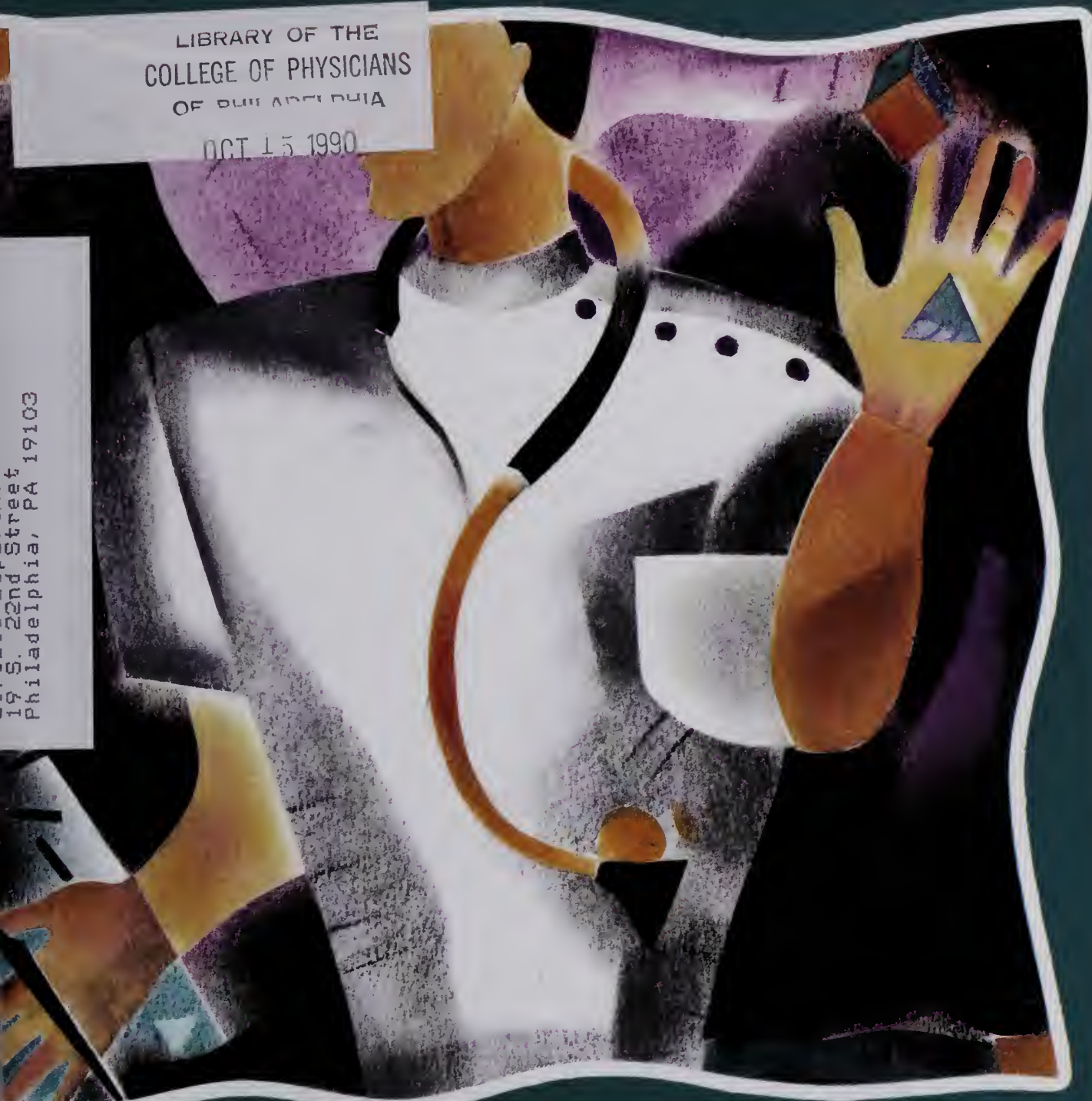
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JOURNAL OF CLINICAL AND HEALTH AFFAIRS

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How Much Is Too Much?

OCTOBER 1990



# "Bone Marrow Transplants In A Community Hospital Can Improve Access And Continuity Of Care."



*Dr. Kathleen Ogle  
Bone Marrow Medical Director*

Methodist Hospital recently instituted a Bone Marrow Transplant Program. Through this program, adult patients with advanced and/or high risk malignant lymphomas, Hodgkin's disease and acute leukemias will receive autologous bone marrow transplants.

As part of the commitment to the program, Methodist has designed a special unit for bone marrow patients. The unit provides a sterile environment for the care of severely immunocompromised bone marrow transplant patients. It is part of a larger oncology intensive care unit to be completed next year.

Traditionally, bone marrow transplants have been performed in a teaching or research hospital setting. However, today it is possible to carefully design this specialized program and bring the clinical expertise to the community hospital. Referring physicians are kept apprised of their patients' conditions and included in after-care recommendations. Since patients with these advanced malignancies can no longer be considered curable by

standard means, bone marrow transplants represent a chance for long term disease-free survival.

Methodist Hospital has had a cohesive Cancer Care Support Team for eight years. This team of oncology specialists and sub-specialists, nurses, technicians, pharmacists, therapists, social service staff and others provide a coordinated care plan for patients to lead to an effective recovery.

Bone marrow processing is performed by the nationally recognized program at the Memorial Blood Center of Minneapolis. For more information on the Methodist program, or if you would like to discuss the program with me, call Cancer HelpLine, 932-5700.

♥ METHODIST HOSPITAL  
**CANCER CENTER**

*Leading The Way*

# Minnesota Medicine

A JOURNAL OF CLINICAL AND HEALTH AFFAIRS



## COVER

**Controlling Dying Patients' Pain** When is administering narcotic analgesics considered humane pain relief and when is it euthanasia—or homicide? This month's cover story (page 19) explores the issue and what physicians need to know about prescribing pain medication to dying patients.

Cover art by Linda Frichtel, a Minneapolis illustrator.

## MINNESOTA MEDICINE

### Owner and Publisher

Minnesota Medical Association

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### **References**

1. *USP DI Update*, September/October 1988, p 120.
2. *Br J Clin Pharmacol* 1985;20:710-713.
3. Data on file, Lilly Research Laboratories.
4. *Scand J Gastroenterol* 1987;22(suppl 136):61-70.
5. *Am J Gastroenterol* 1989;84:769-774.

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**Contraindication:** Known hypersensitivity to the drug. Use with caution in patients with hypersensitivity to other H<sub>2</sub>-receptor antagonists.

**Precautions:** *General*—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

**Laboratory Tests**—False-positive tests for urobilinogen with Multistix<sup>®</sup> may occur during therapy.

**Drug Interactions**—No interactions have been observed with theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

**Carcinogenesis, Mutagenesis, Impairment of Fertility**—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, prenatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

**Pregnancy—Teratogenic Effects—Pregnancy Category C**—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belled rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers**—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

**Pediatric Use**—Safety and effectiveness in children have not been established.

**Use in Elderly Patients**—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

**Adverse Reactions:** Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

**Hepatic**—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

**Cardiovascular**—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

**CNS**—Rare cases of reversible mental confusion have been reported.

**Endocrine**—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

**Hematologic**—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

**Integumental**—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

**Hypersensitivity**—As with other H<sub>2</sub>-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H<sub>2</sub>-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

**Other**—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

**Overdosage:** Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

PV 2098 AMP

[091289]

Additional information available to the profession on request.



**Eli Lilly and Company**  
Indianapolis, Indiana  
46285

NZ-2924-B-049310

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# VASOTEC®

## (ENALAPRIL MALEATE) MSD

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

**Contraindications:** VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

**Warnings:** Angioedema: Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

**Hypertension:** Excessive hypertension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypertension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypertension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hypotension, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypertension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypertension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

**Neutropenia/Agranulocytosis:** Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

**Precautions: General: Impaired Renal Function:** As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure, whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea nitrogen and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

**Evaluation of patients with hypertension or heart failure should always include assessment of renal function.** (See DOSAGE AND ADMINISTRATION.)

**Hyperkalemia:** Elevated serum potassium ( $>5.7$  mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

**Surgery/Anesthesia:** In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

#### Information for Patients:

**Angioedema:** Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

**Hypotension:** Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

**Hyperkalemia:** Patients should be told not to use salt substitutes containing potassium without consulting their physician.

**Neutropenia:** Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

**NOTE:** As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

#### Drug Interactions:

**Hypertension: Patients on Diuretic Therapy:** Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

**Agents Causing Renin Release:** The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

**Other Cardiovascular Agents:** VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methylglucoside, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

**Agents Increasing Serum Potassium:** VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

**Lithium:** Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

**Pregnancy—Category C:** There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters. There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not

been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypotension, or the underlying prematurity.

**Nursing Mothers:** Milk in lactating rats contains radioactivity following administration of  $^{14}$ C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

**Pediatric Use:** Safety and effectiveness in children have not been established.

**Adverse Reactions:** VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2887 patients.

**HYPERTENSION:** The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

**HEART FAILURE:** The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

**Cardiovascular:** Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension); pulmonary embolism and infarction; pulmonary edema, rhythm disturbances, atrial fibrillation; palpitation.

**Digestive:** Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

**Musculoskeletal:** Muscle cramps.

**Nervous/Psychiatric:** Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

**Urogenital:** Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

**Respiratory:** Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

**Skin:** Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

**Special Senses:** Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

**Angioedema:** Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

**Hypertension:** In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

#### Clinical Laboratory Test Findings:

**Serum Electrolytes:** Hyperkalemia (see PRECAUTIONS), hyponatremia.

**Creatinine, Blood Urea Nitrogen:** In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

**Hemoglobin and Hematocrit:** Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol%, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

**Bilirubin (Causal Relationship Unknown):** In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

**Liver Function Tests:** Elevations of liver enzymes and/or serum bilirubin have occurred.

**Dosage and Administration: Hypertension:** In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

**Dosage Adjustment in Hypertensive Patients with Renal Impairment:** The usual dose of enalapril is recommended for patients with a creatinine clearance  $>30$  mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance  $\leq 30$  mL/min (serum creatinine  $\geq 3$  mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

**Heart Failure:** VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been some more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

**Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia:** In patients with heart failure who have hyponatremia (serum sodium  $<130$  mEq/L) or with serum creatinine  $>1.6$  mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. or higher as needed, usually at intervals of four days or more, if the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

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# Changes in the Practice of Pathology

*Richard L. Reece, M.D.*

**R**ecently, I returned to the practice of pathology after pursuing other interests for five years. I know most of you aren't pathologists and aren't intimately acquainted with the practice of pathology. Nevertheless, I thought the changes I've observed after being away for five years might interest you. These changes are striking to me.

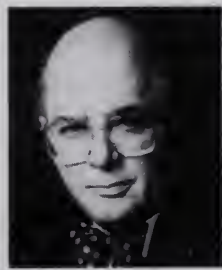
## *General Observations*

Before I address the changes, permit me a few general observations. Everybody ought to have a five-year sabbatical. Such a hiatus puts medical practice in perspective. Nothing teaches as well as contrast. That is why travel is such a marvelous teacher. From my travels to other states these last five years, I've learned that many changes in medicine are generic—the pursuit of the latest in technology, the joining together of hospitals and physicians to amplify that technology, and the feeling of being harassed by government and managed care.

I've also learned some changes are local. In most parts of the United States, at least in the places I've been, you don't see the economic uncertainty and perilous financial straits of Minnesota hospitals and physicians. Perhaps other regions simply haven't undergone sufficient maturation of managed care, or perhaps the economic stability of their health care systems is a reflection of fewer physicians and fewer hospital beds, or more rapid economic expansion and faster population growth.

## *Changes in Pathology*

In any event, the return to practice after five years away from it has been an even better teacher than travel. Here are some of the changes I have



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observed in my specialty.

- First of all, I'm struck by the revolution in surgical pathology. It is now possible, using such techniques as immunohistochemistry, DNA probes, and flow cytometry, to be more precise than ever. Indeed, you can now use paraffin-embedded tissue not only to give diagnostic information but prognostic and therapeutic information as well. And you can do all of this faster. At the laboratory where I'm working, we can perform batteries of special stains or a host of specific DNA probes within a few hours after we read the H&E stains. To sum up, you can now offer more precise information in far less time than you could five years ago.

- Second, I'm struck by the new precision in classification and staging of malignancies, which has come about partly through the use of stains or flow cytometry to identify T and B cells in lymphomas and DNA probes to spot oncogenes or the lack of them

in colon cancer. And it has happened partly because of pressure from oncologists, who have sought (and pathologists, who have found) new diagnostic, prognostic, and therapeutic markers.

- Third, I'm struck by changes induced by the more threatening medical-legal climate. Because of this climate, pathologists are acting more and more defensively. This takes various forms: signatures of more than one pathologist on potential malpractice cases, elaborate protocols for signing out everything from malignancies to placentas, more referrals of problem cases to well-known consultants, more careful selection of exact language, and, in general, more compulsive behavior to make sure all bases and parts of the pathologist's anatomy are covered.

- Fourth, I'm struck by the changes in technology in both clinical and surgical pathology. On the clinical side, you now have more instruments that take only a tiny aliquot of serum or blood, yet these same instruments can produce multiple results. In most cases, you can enter these specimens at random, thus giving you the capacity to produce stat results at any time. In surgical pathology, inventive investigators, such as David Brigati at the University of Oklahoma, have developed automated techniques for numerous DNA probes and for 100 or so special stains, which can be performed singly or as part of larger profiles on tissue specimens.

- Fifth, I'm struck by the urgency with which results are now produced. Tissues delivered in the morning can be read in the afternoon. In the near future, two-hour turnaround time may be possible with the final results on such tests as estro-



gen and progesterone receptor assays, specific identification of pathogenic organisms, and special stains to identify the characteristics of neoplasms.

- Sixth, I'm struck by the higher quality of diagnostic information brought about by the clinical pathologist's new ability to interpret subtle changes in test profiles. For example, the pathologist here, using CPK and LDH isoenzymes, can confidently predict myocardial infarction *before* enzyme levels rise or even before EKG changes occur. He can even tell the extent and timing of the infarct and whether it's accompanied by congestive failure. For the cardiologist and internist these are valuable pieces of diagnostic and prognostic information.

Those are the general changes I've observed so far. As time goes by, and as I come further up the learning curve, perhaps I can let you know what else is going on. In the meantime, I'll fasten my seat belt so as not to be thrown off this roller coaster of rapid change. MM

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# Listening to Patients and to Physicians

Minnesota Medicine interviews E. Langdon Burwell, M.D.

**T**his interview took place on the veranda of an oceanfront home on Cape Cod, where Langdon Burwell, M.D., a retired internist from Falmouth, Massachusetts, convinced me that policy-makers, regulators, and payers aren't listening to the two main constituents who are the *raison d'être* of any medical system—patients and physicians. Patients want community physicians who know them and their families and who care for them the old-fashioned way—compassionately, respectfully, affordably, and conveniently; and physicians want patients and payers who respect and trust the doctor's credentials, professionalism, integrity, and wisdom.

But those who pay for and control the system are preoccupied with regulations to curtail costs or assure quality and with the best payment mechanisms to contain patient demand or punish physician excess. Policy-makers at headquarters and patients and doctors on the front lines don't seem to be listening to each other.

Langdon Burwell deplores this lack of listening more than most. He has, you see, practiced in Massachusetts, where the gap between government rhetoric and practice realities is very large, indeed. Massachusetts, a state with the third largest per capita income and the third highest per capita tax burden in the United States, has a "landmark" universal health care law and health care premiums soaring at the rate of 40 percent per year. Also, on paper at least, it has more physicians per capita than any other state.

Yet, many patients who seek primary care are starving in the midst of plenty. In rural and small-town Massachusetts, including Cape Cod, primary care physicians are in such short supply that they aren't accepting new patients. Patients without doctors must go to walk-in clinics, to hospital emergency rooms, or to major cities such as Boston, Springfield, or Worcester.

Listen closely to what Dr. Burwell has to say; as chair of the Harvard Medical Alumni Survey Committee, he has been listening to his fellow physicians to delineate how alienated those alumni are from their profession.

## Discontented Doctors

**Minnesota Medicine:** Dr. Burwell, you have distinguished credentials in a number of fields. You've practiced internal medicine in Falmouth, Massachusetts, for 35 years. You've helped set up the Pilgrim Health Plan, a Massachusetts IPA with over 130,000 members. Due to your connections in the Woods Hole scientific community, you've served on the Institute of Medicine in Washington, D.C.

You're currently serving as chair of the Harvard Medical Alumni Survey Committee, which is studying the problem of alienation among American physicians through a survey of Harvard medical alumni. How did this survey evolve, and what do the preliminary results show?

**Burwell:** The survey was a result of a fund drive that is currently being conducted by Harvard Medical School to raise funds from its alumni. In the course of fund-raising efforts, letters were sent to all alumni asking for contributions and reminding alumni of what a fine job the medical school was doing in the fields of research and teaching.

The alumni association received quite a few letters from some of its more prominent alumni implying that all is not well out on the front lines, that many older doctors are dropping out of practice early, and many are restricting their practices because of malpractice suits or high malpractice insurance premiums. Many of the younger doctors are heavily in debt from their training and are discouraged by the prospect of paying off that debt. Many older doctors who had enjoyed their practices are no longer encouraging their children to go to medical school.

Many alumni asked if the medical school faculty was aware of these troubles and asked what was being done about them. The alumni council responded by setting up the Harvard Medical Alumni Survey Committee. The council asked me to chair the committee to determine how widespread this alienation was, what the root causes were, and what could be done about them. We are in the process of conducting that survey.



E. Langdon Burwell, M.D.

"Something is fundamentally wrong if both patients and doctors are unhappy."



**Minnesota Medicine:** And the results will be announced next year?

**Burwell:** We hope to conduct a symposium in June 1991, at which time the results of this survey will be discussed. We trust that positive recommendations will be made as a result of the survey findings.

**Minnesota Medicine:** What's your initial impression, are most doctors alienated from the profession, or is it a mixed picture?

**Burwell:** I believe it is a mixed picture. The impression I get from talking with doctors is that many are deeply disturbed about what's happening to their profession, but the results of our survey to date are certainly mixed. A good many doctors are in salaried positions in either large group clinics or in academic positions and seem quite happy with their professional lives. Still, significant numbers of doctors are obviously not happy. Probably the two most common complaints are 1) the threat of malpractice suits and the rising premiums for malpractice insurance; and 2) the "hassle factor"—the number of people looking over the doctor's shoulder, whether it's the utilization review committee of a managed health care plan or the government bureaucracy. Doctors are being subjected to an increasing amount of paperwork and an increasing amount of hassling. Hassling is very discouraging to physicians.

**Minnesota Medicine:** The hassle factor. What can one do about hassling? Hassling seems to me to be a manifestation of the decreasing trust by the payers due to the pressure of continuing medical cost inflation.

**Burwell:** I agree completely. There was a day when the professional was granted certain rights and privileges by society without the constraints put upon most other members of society. In return, a standard of performance was demanded of the professional that was higher than that required of most others. I think this worked very well. If professionals hold to very high standards of performance, then they do not require constant regulation and supervision by large numbers of people. If society loses confidence in its professionals, then inevitably, these regulatory efforts increase. Such efforts are self-defeating because, eventually, they destroy the spirit of professionalism. Once doctors no longer have those high professional standards, they require more and more regulation until they are simply paid servants. As Ayn Rand pointed out in her books, regulation leads to the death of a profession.

**Minnesota Medicine:** I was reading an article in *The Boston Globe* about physician despair. The article quoted Robert Blendon, Ph.D., a professor at the Harvard School of Public Health and an expert in analyzing polls on attitudes toward health care. Dr. Blendon said doctors are unhappy for six reasons: 1) economic uncertainty, 2) intrusion by government into care, 3) hassling by managed care plans, 4) malpractice issues, 5) distrust by patients, and 6) the loss of the social contract between the public and physicians. Is that a good summary?

**Burwell:** It's an excellent summary, although one might quibble a bit with the order of importance. I would concede right from the beginning that we as doctors have been, perhaps to a large extent, responsible for the increasingly negative influence of several of those factors. We can't blame all our current troubles on forces external to our profession, and we can do a great many things within the profession to turn those factors around.

### **Front-line Improvements**

**Minnesota Medicine:** What can we do?

**Burwell:** First, we can give more attention to the type of young person that we are recruiting into the profession. I'm afraid we've overemphasized the fact that medicine is a profession in which one can make a very good income. We've put too much emphasis on verbal and scientific ability as criteria for getting into medical school. There are a lot of harder-to-measure qualities that must be considered when we are choosing young members of our society to become physicians.

Second, we have to reward doctors better for direct patient care. This is not nearly as well rewarded as technical expertise these days. We must have technical competence, but we have to encourage the caring functions much more than we do at present.

**Minnesota Medicine:** In a letter to the *New England Journal of Medicine* last year you pointed out that despite the turbulence of the health system and all of the discussions by the reformers and policy-makers, two principal actors had been sorely neglected, namely the front-line physician and the patient.

**Burwell:** The analogy I used was taken from the poem about the six blind men and the elephant. Many of our health care economists look at parts of the elephant in their attempts to reform our health care system, but few see the elephant as a whole. What proportion of the Gross National Product should we spend on health care? How many specialists and how many generalists should we train? How much should we spend on research?

These are all important questions, but they don't necessarily relate to what's happening to patients and doctors. The two main elements that are keeping the elephant alive are its respiratory and circulatory systems—as vital to the elephant as patients and doctors are to our health care system. Patient satisfaction is extremely important. If we have masses of disgruntled citizens who do not like the kind of medical care they're getting, ours can hardly be called a satisfactory system. The satisfaction of the providers, the doctors, is the other factor. Disgruntled doctors cannot be good doctors. Something is fundamentally wrong if both patients and doctors are unhappy. We must pay more attention to what's happening on the front lines of medicine—to patients and doctors—they are the vital organs of the elephant we call the health care system.

**Minnesota Medicine:** Let's try to get our arms around the elephant. How do we make doctors and patients happier and satisfy both?

**Burwell:** We ought to start by offering more incentives to primary care physicians—to the physicians who enjoy patient contact, to those who don't look at their profession as just a technical skill, but who enjoy getting to know their patients as people.

Patients respond very positively to that kind of interest on the part of the physician. That's what most patients are looking for. Many of them say they just can't find it anymore, that we just don't turn out the old family doctor anymore. It's most important that we turn out more of that type of doctor. But it's easier said than done. As I mentioned earlier, we will have to recruit different kinds of students into medical school, and we'll have to change our training programs a good deal.

Second, we have to recognize the doctor as a professional. If we produce high-quality, well-motivated doctors, we will be able to cut down on the regulation and hassling of doctors. All the overregulation, the malpractice suits, and the restrictions placed on doctors' autonomy are turning off a lot of young people who would be very good physicians.

**Minnesota Medicine:** But are regulatory and malpractice reforms in the offing? Do you see some resolution to those big issues?

**Burwell:** We have to have resolution. Reform of our tort system affects our whole society, not just medicine. The need for basic reform is becoming increasingly necessary, and it's in the offing. In Massachusetts, we have a "No-Fault" insurance bill in the Legislature that has been promoted by our current medical society president, Dr. Barry Manuel. That type of legislation has to be passed to begin reform.

### *The Primary Care Physician's Role*

**Minnesota Medicine:** In the past, you've said that a primary care physician is the conductor of overall care for the patient and ought to be rewarded for time spent in arranging for referrals, consulting with the family, and talking with the patient on the phone. How do you reward a physician for these coordinating functions, most of which are nonreimbursable?

**Burwell:** A good primary care physician should assume responsibility for the management of his or her patients' care. How to achieve that is a very difficult question. Many of our specialists in their training have assumed that, because of their specialized knowledge, they will take over the full responsibility of the patient's management. Most of them, frankly, are not equipped by training or inclination to do it. Managed health care systems realize the central role of the front-line physicians, and most of them acknowledge that the primary care physician is the backbone of the managed health care system. The plan's success or failure depends on

how many good primary care physicians the plan can recruit. In Boston, I believe market forces may well improve the financial status of the primary care physician. The importance of the physician's role as a manager is gradually going to increase the primary care physician's status in the profession.

**Minnesota Medicine:** But how do you reimburse these physicians for that role?

**Burwell:** It could be done in various ways. It could be capitation, fee-for-service, or salary. I favor a combination of fee-for-service and a modest capitation, which I call a retainer fee. The primary care physician spends maybe 20 percent to 25 percent of his or her time on nonreimbursable services—talking to patients and their families, talking with consultants, writing letters—and the physician should receive a retainer fee for every patient for whom he or she is responsible as a primary care physician. How much that should be is arguable. A \$3 to \$5 a month retainer fee

per patient has been discussed. For that, the physician wouldn't have any paperwork or any billing but would be reimbursed for the many important services he or she performs that are currently not reimbursable.

**Minnesota Medicine:** You practiced at Falmouth Hospital, a 130-bed hospital on Cape Cod that has had difficulty attracting and retaining physicians.

**Burwell:** Recruitment has been a problem throughout Massachusetts, not only on Cape Cod. About three years ago, the Massachusetts Medical Society passed a resolution stating that Massachusetts was not a desirable place in which to practice medicine, giving us the reputation of being the "Beirut of American medicine." This label is probably an undeserved exaggeration, but many problems led to this perception, and most of those problems are tied to overregulation by state government.

As a consequence of medicine's bad reputation in Massachusetts, there was a sudden drop in the number of doctors who wanted to come here to practice, and those who were trained here as residents did not care to stay.

Fortunately, we have begun to turn around the physician shortage. Our hospitals in Massachusetts have put on a drive to recruit physicians. I heard recently that 80 percent of the hospitals in Massachusetts are hiring headhunters and are advertising to attract physicians—mostly primary care physicians—to the area.

### *Providing Affordable Care—Universally*

**Minnesota Medicine:** Let's shift from Massachusetts to the national picture. You worked at the Institute of Medicine and in other arenas, and I'm sure you've heard a lot of talk about national health insurance. Physicians for National Health Insurance, the 2,000 member group, is stationed in Massachusetts, which has its own univer-



sal health plan. Just last year, you participated in a panel discussion at Woods Hole with several notables on the subject "Is America Ready for an Affordable and Humane Health System?" What was your position in that discussion?

**Burwell:** My position was that certainly America is *ready* for an affordable and humane system. But can we devise one? One of the stimuli leading to that panel discussion was a good deal of public interest in the Canadian national health insurance system. Many writers and health care economists have suggested we in the United States should swallow the Canadian system hook, line, and sinker.

My position is that we should pay attention to the old adage, "Trust your mother but cut the cards." We should look at that system very carefully before we try to change to that system in the United States. As I'm sure you realize, serious flaws are beginning to develop under the Canadian system. These flaws are only going to be aggravated with time.

Our current health care system also has big defects. Here in the United States, we have the best medicine in the world, but it is unevenly distributed and very costly. We have to learn from the mistakes of other countries and develop something that is unique and appropriate to this country.

**Minnesota Medicine:** One of the proposed ways to

provide affordable care is to cut the expense of American medical care by the managed care approach with HMOs and PPOs—discounted indemnity plans. You were one of the founders of the Pilgrim Health Plan, an IPA. How has that HMO-IPA fit into Massachusetts' health care scene?

**Burwell:** Many of my colleagues thought the Pilgrim Health Plan was some kind of communist plot to subjugate them to government control. I pointed out to them that it was entirely an endeavor in the private sector. HMOs are one way of providing affordable, good quality medical care to the whole population without the necessity of a government takeover.

The Pilgrim Health Plan has grown gradually over the nine years since it was formed and now has more than 130,000 subscribers, mainly in southwestern Massachusetts. All of the hospitals in the area are participating providers, as well as more than 1,200 physicians.

I do not feel that managed health care systems, whether they are HMOs or PPOs, are the answer for everyone any more than I believe that everyone wants to eat at McDonald's or Burger King. But both McDonald's and Burger King have been very successful. I believe we should have various types of managed health care plans that offer affordable, good health care to everybody. More affluent people should be able to buy extras with their money, but basic health care services should be available for everyone.

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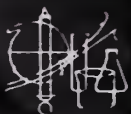
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# Keeping Tabs on Prescription Writers

Lowell J. Anderson

Let's see now, who is writing prescriptions these days? Physicians, osteopaths, dentists, and podiatrists, of course. Also certified nurse midwives, physician assistants, and nurse practitioners. Then there are the assorted anonymous physicians' office staffs and the unknowns and the untraceables who write unreadable prescriptions on hospital and staff-model HMO prescription blanks.

I am really confused! I don't know anymore who is writing the prescriptions I fill. I know who is traditionally supposed to prescribe, but the others seem to have spontaneously generated. No physicians' offices have advised us that they intend to use them. None of their professional societies have communicated with pharmacists to explain the new roles. And some, such as nurse practitioners, have jumped the gun and are writing prescriptions before the law even allows them to—and the physicians for whom they work don't seem to mind.

There is nothing wrong with adding these new practitioners to the ranks of people who "write" prescriptions. Most likely there will be some benefit for all: physicians, pharmacists, patients, and the people who pay the bills.

Physicians will use them in their practices in order to increase their income. With more people writing prescriptions, there will be more prescriptions to fill. And, if pharmacists were fairly reimbursed for their professional services, we would make more money. The patient will have easier access to a health professional. And the people who pay the bills will be billed at a lesser rate by the clinics.

Curiosity got the best of me, and I checked up on these new prescribers. Here is what I found.

A physician assistant (PA) is certified by examination after graduation from a program of study. The PA is supervised by the physician and practices under a protocol established by the supervising physician. This protocol must be submitted to the Board of Medical Examiners for approval. Each prescription written by a PA must be countersigned by the supervising physician prior to the prescription document being given to the patient.

A certified nurse midwife (CNM) must be a registered nurse who has been graduated from a program of study for advanced practice as a nurse midwife and must be certified through the national professional nursing or-

ganization for nurse midwives. A CNM may prescribe and administer drugs and therapeutic devices within practice as a nurse midwife.

A CNM prescribes drugs for ob/gyn and pre- and postnatal care of patients, according to a protocol established by the physician with whom the CNM practices.

The prescribing authority is delegated by the physician to the CNM, and the physician need not countersign the prescription before it is given to the patient. There are about 67 CNMs practicing in Minnesota, the majority of whom are in the Twin Cities.

A nurse practitioner (no recognized acronym, but generally NP) is a registered nurse who has been graduated from a special program and has been certified by examination. Cur-

rently, a nurse practitioner has no more prescribing authority than any other RN. That is, they cannot legally prescribe! Legislation will be introduced this session to give them prescribing authority similar to that of a CNM.

All well and good. But how will pharmacists be assured that the person being represented as a CNM or an NP is as represented, and not an "everyday type" registered nurse? Or, for that matter, how will we know when it is not even an RN, but the precocious 19-year-old who likes to play doctor and who, in reality, is the physician's receptionist?

We can certify within a reasonable doubt that a physician is legally qualified by the possession of a DEA number. The CNM, PA, and NP do not have DEA numbers. Any one of us who has questioned the authority of one of these professionals to issue a prescription has experienced a defensive, and at times abusive, response, but if we don't question their authority, we assume the responsibility of the dispensing of an improperly written prescription. Oddly enough, the physicians who employ these people seem to be indifferent to the manner in which prescriptions are generated by their offices.

Currently, only Share Health Plan, of the IPA-type HMOs in the Twin Cities, will reimburse for a prescription generated by a CNM. (It is interesting that Share, the health plan that reduced its pharmacy network to help it decrease the number of prescriptions filled by its enrollees, now acknowledges CNM prescriptions, which may

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"I don't know  
anymore who is  
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I fill."



increase the numbers of prescriptions.)

I would propose that the physician and nursing communities find a way to certify the legitimacy of these physician extenders in a manner that is acceptable to the pharmacist community. One suggestion is to include the name of the CNM, PA, or NP on the prescription blanks. At least the pharmacist would know that there are people in the office, other than the physician, who will be generating prescriptions. Another device would be for the medical or nursing board to assign certification numbers that can be verified similarly to the DEA numbers.

As a professional courtesy, a physician should inform his or her patients' pharmacies about such a person and the limitations that have been imposed on that person.

As pharmacists, we have the ultimate responsibility for the authenticity of the prescriptions we fill. Unless there is a satisfactory resolution of this matter by medicine and nursing, pharmacists may need to consider refusing to fill prescriptions generated by PAs, NPs, and CNMs.

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*Lowell Anderson is president of Watauga Corp. of St. Paul, a pharmacy practitioner, and a consultant in the areas of managed health care and pharmaceutical marketing.*

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### References:

1. Data on file, G.D. Searle & Co.
2. 1988 Joint National Committee: The 1988 report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. *Arch Intern Med* 1988;148:1023-1038.

### BRIEF SUMMARY

**Contraindications:** Severe LV dysfunction (see **Warnings**), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

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# Pain Control in Dying Patients

*How Much Is Too Much?*

.....

**O**n April 12, 1990, in a small town not more than an hour from the Twin Cities, a 75-year-old woman died of cancer. She died in pain.

The woman's granddaughter, a Twin Cities attorney who requested that all names in her story be withheld, is angry because she believes that her grandmother needlessly suffered during her final days.

For pain relief, the dying woman had been receiving 5 mg to 10 mg of morphine, provided by a home health nurse. When she could no longer eat and her pain had become increasingly debilitating, she was moved to a hospital, where the same dosages were continued. But by that time the dosages weren't enough, the granddaughter recalls.

"When she was medicated she would rest quietly and from time to time open her eyes," the granddaughter said. But after about two hours, the morphine would start to wear off, and she would become extremely restless and would cry out.

"She didn't know us anymore," the granddaughter said. "It was really distressing for us to see

her that way. My mother would ask for more morphine, but the physician would say, 'Just wait it out.'" He even proposed restraining the woman when she started thrashing about in pain, but the family opposed that, and stayed with her round-the-clock to make sure that never happened.

Repeated requests for more pain relief for the dying woman went unheeded. Even at the end, she never received more than 15 mg of morphine, the granddaughter said. "The nurses and physician [an internist] asked my mother if she was aware of these morphine cases. 'There are these morphine cases out there,' they said. They commented that their liability was on the line if they gave too much morphine."

The granddaughter tried to reason with the nurses and physician, and her mother even offered to sign a statement saying the family wouldn't sue, but the physician and nurses were unswayed. "When I talked to the nurses, they were very sympathetic, but they were afraid," the granddaughter said. "One even said, 'You know, they can send people to jail for this.'"

Nobody has gone to jail for administering too much morphine to a dying patient. But earlier this year, on April 24, Hennepin County Attorney Tom Johnson and Hennepin County Medical Examiner Garry Peterson, M.D., accused five physicians of committing homicide in two separate cases involv-

*Miriam K. Feldman*



ing terminally ill people who were given large doses of morphine before their deaths. (Johnson chose not to carry the cases forward to a grand jury, stating there was little, if any, chance of conviction.)

Since then, the Minnesota Medical Association and the county attorney have met and have found some common ground for working toward a better understanding of how those cases will affect the medical community. But MMA's initial reaction to the county attorney's characterization of these two cases was swift and angry. The MMA called the determination misleading and ill-informed and asserted that a medical matter had been incorrectly thrown into the political arena. Some have argued that the county attorney and medical examiner were politically motivated. The more likely explanation, others say, is that they got in over their heads and became entangled in a matter that never should have reached their offices in the first place.

Whatever the motivation, many people believe the characterization of the deaths as homicides, unprecedented in the annals of American medical history, has had a chilling effect on medical practice. Some physicians are now afraid of administering appropriate dosages of morphine to dying patients, say physicians, MMA leaders, biomedical ethicists, and legal experts. These experts also agree that physicians must not let the rulings interfere with good judgment and sound medical practice. The 75-year-old grandmother, for example, should not have died in pain.

Tom Johnson doesn't disagree. "It was certainly not my intent, nor that of Dr. Peterson, to in any way prevent people from getting adequate dosages of pain-relieving drugs," Johnson said in a recent interview. "So if that's happening, it shouldn't be."

But it is, according to a number of sources, and it will continue to happen until physicians learn more about pain management and about the legal and ethical precedent that supports good medical judgment. That learning process will be the silver lining in this otherwise unfortunate situation, observers say. What's more, the situation has compelled the medical community to clarify a number of troublesome issues, including the appropriate use of narcotic analgesics at the end of life, and the distinction between euthanasia and good medical care. It also has underscored the need for better documentation in all medical records. Finally, it is a reminder to physicians that they cannot always heal—that sometimes their

role is to find ways to let a patient die with as much dignity and as little pain or suffering as possible.

"The reason we're in this issue is that what we do in medicine now is decide the time of death. We have to decide sometimes on ethical grounds whether to keep someone alive. We have a lot more ethical decision making than we had even 10 years ago, and particularly, 20 or 30 years ago," said A. Stuart Hanson, M.D., a pulmonary medical specialist at Park Nicollet Medical Center and president of the Hennepin County Medical Society.

Specifics about the two cases that led to the Hennepin County investigations are sketchy because the information is privileged. It is known that in each case the dying patients were being kept alive on ventilators, and as they were being removed from the ventilators, at their own request, they were given large doses of morphine to counteract the feeling of "air hunger" or suffocation that occurs when a ventilator is withdrawn. Death followed within an hour in one case, and within five hours in the other. The medical examiner says morphine poisoning, not the underlying diseases, killed the patients.

At issue, therefore, is what happened after the ventilators were turned off. Unfortunately, there is little in the ethical literature to guide physicians who are treating patients in that end stage of life. "There has been a lot of attention as to whether to take someone off a respirator, but very little

focus on what you do then," said Reinhard Priester, a research fellow at the Center for Biomedical Ethics at the University of Minnesota.

A project recently undertaken by the center will explore the question of what to do when the respirator is removed. The project on the "humane care of the dying" was prompted in part by Hennepin County's homicide investigations. A proposal for the project articulates the dilemma physicians face when treating patients nearing the end of their lives: "There is a broad societal consensus which indicates that the competent person, or the representative for the incompetent person in some circumstances, has a right to refuse or to stop any medical intervention," the proposal states. "Once such a decision is made, however, there are no further directives or consensus statements which might assist the practitioner in the process of implementing these decisions. Without clear standards, individual doctors and nurses are left to struggle with 'how-to's' on a case-by-case basis."



ILLUSTRATIONS BY LINDA FRICHETTE

"The law will protect a good-faith medical judgment, even if it does hasten death."

—Phebe Haugen

The center's report, due in the fall of 1991, may elucidate this troublesome area of medical ethics.

But physicians can't wait until then to proceed with confidence when caring for terminally ill patients. Physicians must know that legal and ethical precedent already are on their side, and they must not hesitate to give appropriate pain relief to dying patients, says Phebe Haugen, professor of law at William Mitchell College of Law in St. Paul. "The ethics literature is consistently emphatic in its assertion that to withhold any necessary measure of pain relief in a hopelessly ill person out of fear of depressing respiration or of possible legal repercussions is unjustifiable," said Haugen, whose area of expertise is biomedical ethics. "To allow a patient to experience unbearable pain or suffering is unethical medical practice."

Physicians who are confused about how to proceed with the use of narcotic analgesics in light of the Hennepin County cases should look to the ethical principle of double effect for guidance, Haugen said. The principle of double effect has a long and respected tradition, beginning, it is believed, with St. Thomas Aquinas' notion of *praeter intentionem*, she explained. The principle recognizes that "it's permissible to make a bad effect, if the purpose is to make a good effect." According to the principle of double effect, it is not euthanasia if a physician administers a dose of morphine that hastens death, so long as the goal was to reduce suffering.

"Euthanasia refers to the intentional killing of a person for reasons of compassion. It is, of course, unjustifiable homicide," Haugen said. "The important thing to recognize is that very often, and it happens a lot in medicine, decisions have to be made that hopefully will have good effect, but also carry some risk."

Haugen implores physicians to trust their own medical judgment. "When I get an opportunity to speak to groups [of physicians] I encourage them to be courageous and to educate themselves," she said. "With the combination of education and courage they won't have to be afraid. They have to have confidence in their medical judgment. The courage has to come in recognizing that their medical judgments can be relied on," she said, adding, "The law will protect a good-faith medical judgment, even if it does hasten death."

Haugen pointed out that doctors, not the law, set the standards for their medical judgments. "Even when talking about medical malpractice, the standard of what's

good medical practice is what the doctors give us," she explained. "The standard is in their hands. It's not a standard that the law puts on them."

Medicine is so specialized, though, that physicians in one area may not be well versed in the practice standards of another. Most people who work in a hospice have enough familiarity with large doses of morphine that they are not worried about prosecution, said J. Paul Carlson, M.D., a hematologist/oncologist at Park Nicollet Medical Center and the hospice director at Methodist Hospital in St. Louis Park. "Physicians who rarely treat terminal illness are reluctant even to prescribe appropriate doses of morphine, and I can understand their reluctance."

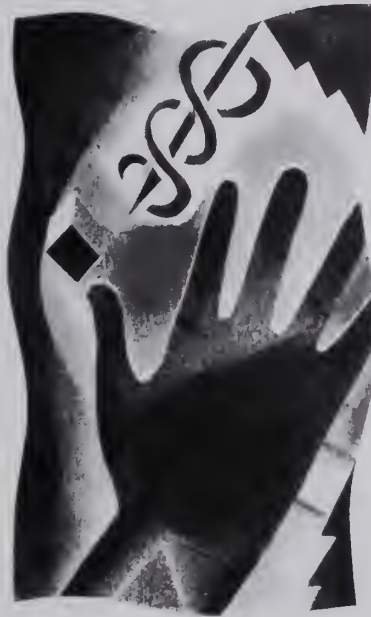
Someone taken off a respirator will die for certain, said Carlson, alluding to the Hennepin County cases. "Because of the distress of breathing, it would be cruel to force someone to die without morphine in those circumstances," he said. "I think it's wrong to withhold narcotics in a dying person."

Like Carlson, MMA President Richard Tompkins, M.D., emphasizes that the county attorney's homicide investigations should not jeopardize physicians' ability to provide necessary pain relief. "We have to distinguish clearly between appropriate medical care and euthanasia. We don't, as a medical association, endorse euthanasia. We want to make sure people who are miserable receive appropriate care. Sometimes that might bring death sooner than other-

wise, but that management is crucial to relieving pain and distress," he said. "This isn't only pain distress, it can be respiratory distress, the feeling of suffocation."

"Failure to provide adequate pain management is a deviation from the accepted standard of medical and ethical care," said Ann Russell, an attorney for the University of Minnesota Hospital and Clinic. Russell has been asked for advice numerous times by physicians who are concerned about the homicide investigations. She advises physicians to develop a plan of care (not a treatment plan) for patients entering an extended dying process. "Anything is appropriate, so long as it contributes to the comfort and freedom from pain, and contributes to the dignity of the patient," she said.

But as Carlson pointed out, not every physician is equally knowledgeable about the appropriate use of morphine. Miles Belgrade, M.D. agrees. "Oncologists, for the most part, are aware of how to manage pain. The specialist doctors know. But still, there are lots



"Nobody  
taught me in  
training how to  
manage someone's  
death."

—Stuart Hanson, M.D.



## A Prescription for Comfortable Death

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In one of the ironies of modern medicine, the traditional role of the physician gets turned around so that sometimes the healer must instead become the manager of a patient's death. As medical science discovers more and more interventions for keeping people alive, the challenge for physicians becomes trying to decide when those interventions should be abandoned in favor of death. "We have to make more complex decisions about life and death matters," said A. Stuart Hanson, M.D., a pulmonary specialist at Park Nicollet Medical Center and president of the Hennepin County Medical Society. "Frequently, people die when humans decide that it's time."

Our society, Hanson noted, does not condone actively shortening a person's life, but when a patient is dying there are acceptable ways to ease the transition from living on life support to comfortable death. In other words, the treatment plan becomes a prescription for managing somebody who is dying.

"The first principle in the practical management of somebody in a terminal state is to anticipate and plan the giving of medications and withdrawal of any therapies you're doing already," said Hanson, who chaired a Hennepin County Medical Society committee that this spring drafted a position paper on the management of pain and suffering in the dying patient.

There are typically seven therapies that a physician must consider when deciding to withdraw treatment from a dying patient, Hanson said. Not all of them are necessarily withdrawn at once, and Hanson arranges them in order of severity, starting with the decision not to resuscitate. Doctors and their patients must decide whether the following will be withheld:

- CPR,
- intubation and ventilation,
- treatment for arrhythmia,
- treatment for low blood pressure,
- treatments for organ failure, such as dialysis for kidney failure,
- antibiotics to treat infections, and
- food and water.

These decisions must be shared, Hanson said. Options and plans must be discussed with the patient, if the patient is alert, and with relatives, nursing staff, and other doctors involved in the case.

But withdrawal of treatment is only part of the management plan for a dying patient. Physicians also must think about prescribing medications to relieve pain and suffering. An analgesic, such as morphine, is appropriate to relieve the suffering, says Hanson, adding that it is best to administer regular or continuous doses of analgesics before the pain develops, because higher dosages of the analgesics will be required if they are given after the pain or distress worsens. Physicians should not worry about addiction, Hanson said, because the patient is dying. If the

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"Frequently, people die  
when humans decide that  
it's time."

—Stuart Hanson, M.D.

patient is unlikely to live more than six months, there should be no attempt to try to control the patient's addiction to morphine.

An analgesic, such as morphine, is strongly advised if the patient is being withdrawn from a respirator, Hanson said. Several hours before the respirator is removed, the patient should be started on regular or continuous doses of morphine, supplemented with sedatives or tranquilizers such as diazepam (Valium), he recommends. The ventilator should be reduced in steps according to a plan, Hanson said. It can be moved back one or two ventilations per minute, on an hourly basis. (The actual act of "pulling the plug" is not done unless the patient is brain dead.) When it is time to remove the tube there should be an understanding that if the patient begins to struggle, the tube will not be replaced. Instead, higher doses of analgesic should be given to relieve the pain and suffering.

Learning effective techniques to relieve the pain and suffering of dying patients often takes place at the bedside, where, Hanson says, "physicians, as well as nurses, can learn from each other."

By Miriam K. Feldman

.....

of physicians who don't have a handle on pain management," said Belgrade, who is a neurologist at Hennepin County Medical Center and chair of the physician education committee of the Minnesota Cancer Pain Initiative.

Many cancer patients die without adequate pain relief, because physician education is lacking, Belgrade said. "We have not recognized the importance of treating pain early and aggressively," he wrote in a newsletter published by the Board of Medical Examiners.

"Pain science is still in a relative infant period," Belgrade explained in an interview. "We know a lot about pain mechanisms now, but it's not taught in medical schools and not taught in resident training programs. So what physicians know about pain is [by] word of mouth." It will take time before current medical research filters down to the textbooks and medical schools, he said.

"Physicians who are managing patients in the dying stages have an obligation to learn effective use of comfort measures, including relief of pain and suffering," said HCMS President Stuart Hanson. "Nobody taught me in training how to manage someone's death," Hanson said, recalling that when he started practicing 19 years ago, there was no continuous drip IV morphine, a pain management tool that he has subsequently learned to use. "There are techniques that can be taught to make the transition from living on life support to comfortable death," Hanson said. (See story, page 22).

Appropriate use of morphine is certainly one of those techniques. Although pharmacologists do not understand exactly how morphine works, they do understand its capacity to both alter the perception of pain and the reaction to it, and they know that morphine can alter the transmission of pain at the spinal level, said Sheldon Sparber, professor of pharmacology and psychiatry at the University of Minnesota. "For example, people say they think the pain is still there, but it's not bothering them as much.

"Morphine is a marvelous drug for its analgesic properties," Sparber said. "It makes you feel wonderful. It's a very seductive drug. It produces a feeling of well-being." Morphine also is a drug to which a person develops tolerance. "A dose of morphine that might kill someone the first time would have little effect on someone who is tolerant," he explained. A typical analgesic dose of morphine for an adult with a broken leg might be

10 mg to 15 mg, Sparber said. On the other hand, a person tolerant to morphine could require much higher doses. For example, Sparber noted that a dose of methadone (another opiate) given to heroin addicts might be as high as 140 mg per day.

Because the body develops a tolerance to greater and greater doses of morphine, it is unrealistic to establish a "cap" dose, Sparber said.

Given that a cap dose is unrealistic for morphine, physicians must learn to document carefully their decisions to administer high doses of the drug, in order to avoid the suspicion that their intent was anything other than the relief of pain and suffering. Inadequate documentation appears to be at the heart of the matter in the two Hennepin County cases. "What we were presented with were instances of large doses of morphine without any documentation that those dosage levels were necessary to control the patients' pain," said County Attorney Tom Johnson.

Like Johnson, Medical Examiner Garry Peterson urges physicians to document their rationale for giving the medication. "[Physicians] should not feel there's a problem in issuing any amount of pain-relieving drugs that is medically necessary," said Peterson, adding that he's not trying to second-guess physicians' treatment of their patients' pain and discomfort.

Documentation is a common problem among physicians, noted MMA's Tompkins. "Physicians get busy, they write truncated, brief notes, and sometimes they don't explain. And when they get in trouble there's no backup," he said.

Tompkins urges physicians to keep the lines of communication clear. "Physicians, when they deal with these kinds of problems, must keep the families informed and must be sensitive to other care givers," he said. "Physicians shouldn't be frightened; their protection is communication and documentation."

"Documentation is always a difficult area for physicians," concurs Paul Sanders, M.D., the MMA's chief executive officer. "We get so focused on care, we forget that others need to be able to read what's going on and understand it." Sanders advises physicians to give the care they think is appropriate, "but support that care with very careful documentation of what they are doing, why they are doing it, the dosage of medicines they are using, and the rationale for the dosages they are using."

The medical examiner and county attorney are so adamant about the need for adequate documentation



"Physicians have  
to have  
confidence in their  
medical  
judgment"

—Phebe Haugen



that they issued a joint statement calling on medical institutions to adopt guidelines that establish criteria for treating terminally ill patients with large dosages of pain-relieving drugs. The guidelines should address a number

**"We have to distinguish clearly  
between appropriate medical care  
and euthanasia."**

*—Richard Tompkins, M.D.*

of areas, they said, including documentation.

While the medical community has objected to this call for guidelines by the county attorney's office as an unwarranted intrusion into medical matters, few dispute that some sort of guidelines would be helpful. In fact, during the course of the county attorney's investigation, the Hennepin County Medical Society prepared a position paper spelling out guidelines for the management of pain and suffering in the dying patient (see *Minnesota Medicine*, June 1990): "The administration of large quantities of narcotic analgesics is not euthana-

sia when the purpose is to alleviate pain and suffering, not to shorten the life of the patient," the guidelines state. They also say: "Health care professionals should make every effort to relieve the suffering of the dying patient, even if this requires intermittent or continued administration of significantly larger doses of narcotics and sedations, which in circumstances other than anticipated death would be considered inappropriate. The goal of treatment is to relieve patient suffering to the fullest extent possible. For dying patients there is no 'cap' dose; high doses may be required for relief of pain and suffering."

"The Hennepin County Medical Society has drafted a very good set of guidelines," Haugen said. In fact, she points to the guidelines as one of the good things that have come out of this situation. They indicate, she says, that the medical community took the investigations very seriously and that it is trying to come to terms with the grayness of some issues. "If there were a statewide consensus on appropriate use of narcotic analgesics, and hospitals would adopt the Hennepin County [Medical Society] guidelines, and then educate their staff as to how to interpret them, we'd be in good shape." **MM**

*Miriam Feldman is a Minneapolis-based free-lance writer and frequent contributor to Minnesota Medicine.*

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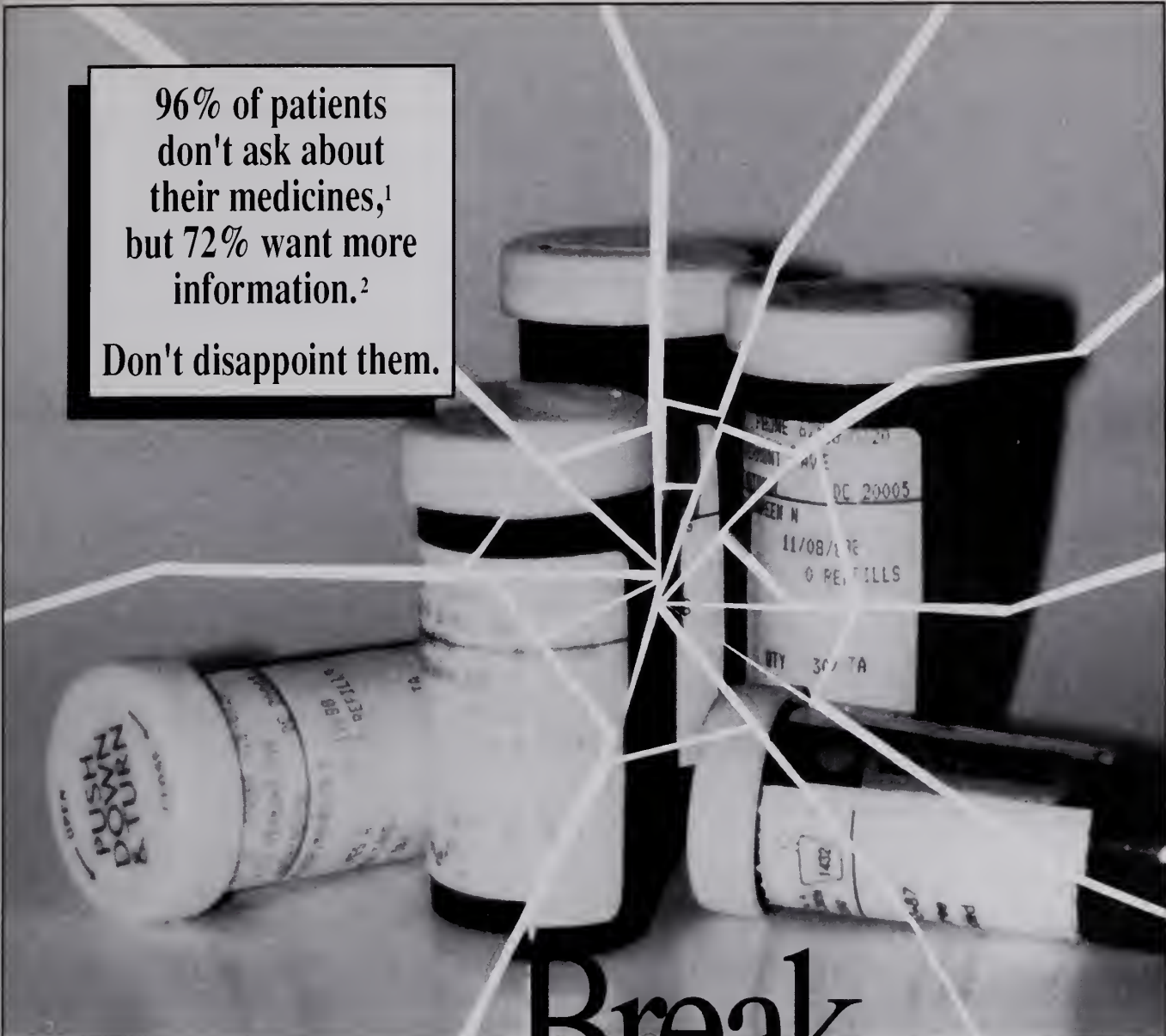
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# Intracranial Aneurysms

## A Review

Roberto C. Heros, M.D.

### ABSTRACT

Intracranial aneurysms are common, and their rupture carries a grave prognosis. There is no effective way of preventing the development of intracranial aneurysms, but noninvasive means of detection are becoming increasingly practical and, at present, should be used routinely—at least in populations at high risk. SAH is frequently preceded by warning signs that, when recognized by the primary care or the emergency room physician, can lead to prompt and safe surgical intervention. About half the patients who suffer a major rupture either die or remain in poor condition as a result of the hemorrhage. In the rest, surgical intervention has become safer and very effective in preventing subsequent hemorrhage, which occurs in about 50% of patients if the aneurysm is left untreated. Since early surgery should be at least considered in the majority of these patients and since the early treatment of a patient after SAH is so specialized, it appears prudent to manage patients with SAH in units where the necessary neurological and neurosurgical specialized intensive care is available.

### Significance

The prevalence of intracranial aneurysms at autopsy is between 2% and 5%; however, many of these aneurysms are relatively small, and there is strong evidence to indicate that aneurysms tend not to rupture until they have reached a size of about 7 mm to 10 mm.<sup>1,2</sup> It is estimated that 400,000 individuals in the United States harbor an intracranial aneurysm of significant size. Each year 12 of every 100,000 Americans will experience a subarachnoid hemorrhage (SAH) from a ruptured aneurysm. This accounts for approximately 25,000 new cases of ruptured intracranial aneurysms annually. About 50% of these patients die or become permanently disabled as a result of the initial hemorrhage, and another 25% to 35% will die of a later hemorrhage if left untreated.<sup>3</sup>

### Etiology

Despite their frequency, we do not yet know the precise etiology of intracranial aneurysms. Apparently, a combination of congenital and acquired factors play a role.<sup>4</sup> The minority of intracranial aneurysms are familial in nature. This number is small enough that there is no need to study immediate relatives of patients with intracranial aneurysms unless two or more members of the immediate family have had intracranial aneurysms.<sup>3</sup>

Rarely, intracranial aneurysms are associated with diseases that produce defects in vascular walls, including the Ehlers-Danlos syndrome, Marfan's syndrome, and pseudoxanthoma elasticum. In addition, intracranial aneurysms occur with unexpected frequency and at an earlier age in patients with coarctation or hypoplasia of the aorta, poly-

cystic kidneys, and fibromuscular dysplasia. Rarely, aneurysms can be caused by trauma (traumatic or false aneurysms), infection (mycotic aneurysms), or emboli from tumors, particularly atrial myxomas. Some aneurysms are due to atherosclerotic dilatation and damage to the vessel wall, which results in fusiform aneurysms, in contradistinction to the usual type of saccular or "berry" aneurysms that account for most cases of SAH.<sup>4</sup>

### Prevention

Because the etiology of intracranial berry aneurysms is not clearly understood, there is no effective means of preventing their occurrence. Rupture of an aneurysm, however, can be effectively prevented by surgical treatment of the aneurysm once it is identified. Ideally, this should be done before a major hemorrhage occurs because, as stated earlier, the overall morbidity and mortality associated with an SAH is close to 50%.

Efforts to prevent a major hemorrhage from an aneurysm can be roughly divided into two categories. Detecting asymptomatic aneurysms is the first means of preventing hemorrhage. Present-day computerized tomography (CT) and magnetic resonance imaging (MRI) are capable of detecting the great majority of intracranial aneurysms. Economically, however, it is not yet practical to scan asymptomatic patients unless they are in one of the high-risk categories described above. These scans are very expensive, and the prevalence of threatening (more than 7 mm) asymptomatic aneurysms is too low to justify routine scanning. However, it is conceivable that in the not-so-distant future technological advances will make these scans or other noninvasive means of detecting intracranial aneurysms practical for screen-



ing whole populations.

Recognizing early warning signs of a major SAH is the second important aspect of hemorrhage prevention. Fortunately, almost 40% of major hemorrhages are preceded by premonitory signs and symptoms. Greater physician awareness of these warning signs would significantly help to prevent SAH, since surgery to remove these lesions before a major rupture occurs is very safe and effective.<sup>2</sup> The most common of these warning signs is a headache not severe enough to hospitalize the patient but frequently severe enough for the patient to consult a physician. Sometimes the headache is localized to the side of the aneurysm. These headaches are usually due to a minor "leak" from the aneurysm and usually occur within two weeks prior to rupture. Therefore, when a physician recognizes this headache as potentially dangerous, it is important to proceed with adequate tests to rule out an aneurysm. This usually means a CT scan or MRI and, if the level of suspicion is high enough, a spinal tap if the CT or MRI is negative. Currently, a spinal tap is a more sensitive indicator of a "minor leak" from the aneurysm than most available scans. As stated earlier, either a good CT scan or an MRI would detect most, but certainly not all, aneurysms; these tests will frequently miss some of the smaller lesions.

Obviously, the physician should not obtain a scan on every patient complaining of a severe headache. In many of these patients, there is a clear cause for the headache such as migraine, intercurrent systemic illness, obvious stress with a history of recurring stress-related headaches, etc. It is a frequent mistake, however, to diagnose a "flu syndrome" in a patient with a severe headache of relatively rapid onset who is also complaining of some nausea and who has no significant history of recurrent headaches. A headache bad enough to bring a patient to a physician or to an emergency room must be treated as a serious event unless there is good reason not to. Tragically, patients often have been to one or several physicians or emergency rooms within the two weeks prior to

a major SAH and have been diagnosed in each instance as having the "flu." Many of these patients have also been treated with aspirin, which, of course, can exacerbate the subsequent hemorrhage.

The next category of warning signs is related to rapid aneurysmal expansion, which can result in focal findings such as cranial nerve deficits (particularly of the oculomotor and optic nerves) with resulting pupillary abnormalities, diplopia and visual problems. Focal neurological deficits from brain compression can also occur, but they are less frequent.

The last, and much less frequent, category of warning signs is related to ischemia, either from an embolus from the aneurysm or from direct compression and occlusion of adjacent vessels by the aneurysm. This can result in transient ischemic attacks or strokes that are usually recognized without difficulty as a serious event.<sup>3,5</sup>

### *Clinical and Radiological Diagnosis*

A major hemorrhage is usually obvious. A conscious patient will almost invariably complain of an extraordinarily severe headache and will use such terms as "the worst headache of my life" or "like a bomb exploding in my head." The onset of the headache may be rapidly followed or may have been preceded by a brief period of unconsciousness. The patient may or may not have focal neurological deficits. Nausea and vomiting are frequent and a stiff neck will develop, but it takes four to six hours for the latter to occur.<sup>6</sup> The clinical diagnosis is much more difficult in the comatose patient. In these cases, the history from a relative can be quite helpful but is not always available. The patient may have complained of an extremely severe headache before lapsing into coma. Occasionally, subhyaloid hemorrhages can be seen on the initial fundoscopic examination and, in the absence of trauma, is practically diagnostic of an SAH. Generally, however, the diagnosis is first made with CT scanning or MRI in a comatose patient.

CT scanning is still the best initial

radiological study for the patient with suspected major SAH, because it is more helpful than MRI in detecting early hemorrhage. Every major SAH will be recognized readily by CT scanning, which may also indicate the site of the rupture. An MRI may locate the site more accurately; however, MRI is not necessary, because when SAH is recognized by CT scanning, angiography usually follows, and a cerebral angiogram is the definitive and most sensitive way of pinpointing the site and anatomy of an intracranial aneurysm. The initial CT scan will not only indicate the presence of an SAH but also will indicate the presence of intracerebral hemorrhage and intraventricular hemorrhage or hydrocephalus.

The timing of angiography is somewhat controversial and is related to the timing of surgery, which will be discussed later. In keeping with a general tendency to operate earlier, there has been a trend toward very early angiography. There is little to be lost and much to be gained by early cerebral angiography in the stable patient. This will make the definitive diagnosis of an aneurysm and define its anatomy. The aneurysm will be readily seen at this time because vasospasm does not occur for the first three or four days after SAH, and the vessels will be of normal caliber at this time. The information obtained will enable the neurosurgeon to assess the difficulty of surgery and the desirability of early or late intervention. If there is an associated intracranial hematoma that may require emergency evacuation, the surgeon will be prepared to clip the aneurysm at the same time.<sup>3</sup>

### *Natural History*

Asymptomatic, incidental, unruptured aneurysms bleed at a rate of approximately 2% to 3% per year.<sup>7</sup> Once an aneurysm ruptures, the risk of rehemorrhage is much higher. The overall risk of another hemorrhage is about 30% to 40% during the six months after the initial hemorrhage. The first two weeks, and particularly the first 48 hours, are the most risky. In a recent large study, the risk of rehemorrhage during the first 48 hours was about 6%, and after that

the rate was 1.5% per day for the rest of the initial two weeks.<sup>8</sup>

SAH carries a high morbidity—only about 50% of patients with a major SAH make a good recovery, usually after the aneurysm has been clipped.<sup>3</sup> Unfortunately, about 30% of the patients die either before reaching the hospital or during the first few days after being admitted as a result of neurological devastation from the first hemorrhage; nothing can be done for these patients.

## Therapy

### Medical treatment

Table 1 outlines the general protocol we follow for patients with SAH. Antifibrinolytic agents were popular in the past, but several good studies have shown no overall benefit from their use. They offer no net advantage because, although they reduce

the rate of rebleeding by retarding the lysis of the clot at the rupture site, they also exacerbate vasospasm (abnormal narrowing of large cerebral arteries that can lead to cerebral ischemia) and hydrocephalus. However, since, as will be discussed, we have learned to predict which patients are at risk for developing vasospasm, it makes sense to use antifibrinolytic agents in those patients who are at no substantial risk for vasospasm and in whom the surgery is going to be delayed. Antifibrinolytic agents have been shown to be effective in preventing rehemorrhage, which is the main goal with these patients.<sup>3</sup>

Two important recent changes in our management of SAH patients deserve comment. Both are related to the fact that, with an increasing tendency toward early surgery, which effectively prevents rehemorrhage,

vasospasm has become the most likely cause of morbidity in these patients. Vasospasm is exacerbated both by hypotension and by dehydration. Therefore, whereas we previously lowered the blood pressure artificially to prevent rehemorrhage, we now keep these patients in a normotensive state and treat only those patients who already have significantly elevated blood pressure, with normotension as our goal. Even in these cases, we use only antihypertensive agents that can be rapidly reversed to allow higher pressure if the patient becomes symptomatic from vasospasm. Similarly, whereas previously we dehydrated these patients, we now try to achieve a normovolemic state and do not institute any fluid restriction unless there is clear evidence of a major increase in intracranial pressure.

Although the etiology of vasospasm is not well known, it is clear that the severity of the narrowing of cerebral arteries detected angiographically is directly related to the amount of blood in the basal subarachnoid spaces that can be clearly seen on an early CT scan. When there is a thick clot of blood, the blood vessels in that region will invariably develop significant narrowing, which is detectable angiographically usually after the first four days and for as long as three to four weeks. Conversely, when there is only a thin layer of blood or no blood visible in the basal subarachnoid spaces, it is unlikely that vasospasm will develop. Therefore, the CT scan is an excellent predictor of vasospasm.

In spite of many years of research, the exact pathophysiological mechanisms that lead to this abnormal narrowing of cerebral arteries is unknown. Therefore, we have no effective, specific means of preventing vasospasm. However, it appears that calcium channel blockers are partially effective in reducing the incidence of permanent neurological morbidity from vasospasm. Three major studies have shown that nimodipine, in a 60 mg dose every four hours maintained for three weeks after SAH, can reduce by about 30% the incidence of adverse neurological outcomes as a consequence of vaso-

Table 1

### *Medical therapy for aneurysmal subarachnoid hemorrhage*

1. Bed rest in a quiet room; avoid unnecessary stimulation.
2. Fluid administration aimed at maintaining normal circulating volume. Avoid hypotonic solutions or large ingestion of salt-free solutions. The goal is to prevent dehydration and hyponatremia.
3. Regular diet with sufficient roughage to prevent constipation.
4. Elastic stockings or pneumatic compression boots.
5. Anticonvulsants (diphenylhydantoin, 300 mg/day or equivalent).
6. Stool softeners (Colace 100 mg three times a day or equivalent). A bedside commode may be allowed.
7. For agitation, phenobarbital (15-30 mg intramuscularly or orally every 3 hours) or Haldol (0.5-2 mg intravenously or intramuscularly). Avoid unnecessary oversedation and drowsiness, which impairs neurological evaluation.
8. For hypertension, hydralazine (5-20 mg intramuscularly every 3 hours) to bring the systolic pressure below 150 mm Hg without causing drowsiness. In some cases propranolol is used, and occasionally, resistant hypertension requires intravenous nitroprusside for control. The goal is normotension. Avoid hypotension.
9. Corticosteroids (Dexamethasone 4 mg po qid or equivalent) to be used only in patients with significant neurological deficits or with clinical or radiographic evidence of intracranial hypertension or mass effect.
10. Cimetidine (300 mg orally or intravenously every 8 hours) is given along with antacid by mouth or gastric tube every 3 hours for patients on corticosteroid treatment.
11. Codeine (30-60 mg orally or intramuscularly every 3 to 4 hours) for headache. Demerol can be used if necessary.
12. Antifibrinolytic agents used only in patients with mild to moderate SAH who are not at high risk for vasospasm and in whom surgery is going to be intentionally delayed.



spasm.<sup>9</sup> Therefore, we recommend this treatment prophylactically in all patients with SAH. Side effects appear to be minimal, and the occasionally seen hypotension is rapidly reversible by decreasing or discontinuing the drug. In addition to this, we overhydrate with volume expanders (usually plasma derivatives or dextran) patients at serious risk for vasospasm because of thick clots in the basal cisterns as revealed on the initial CT scan. Once symptomatic vasospasm develops there is no effective specific treatment, but many of these patients can improve if the cerebral perfusion pressure is decreased. This can be accomplished both by intravascular volume expansion with colloid and with artificial increase in the blood pressure with vasopressors. Our tendency has been to use hypervolemic hemodilution by using only plasma expanders and no blood, which leads to a decrease in hematocrit. That, in turn, offers a significant rheological benefit in these patients.<sup>10</sup>

Hydrocephalus develops in about 10% to 20% of patients after SAH. Sometimes it develops acutely, and the patient presents with a major SAH and significant ventricular dilatation, usually with blood in the ventricles. These patients need to be treated by emergency ventriculostomy and sometimes can make a dramatic recovery. Another group of patients develops what we call "subacute" hydrocephalus with increasing headache and confusion, disorientation, and slight drowsiness, usually during the first 10 days after SAH. With these patients, we tend to be conservative and treat them symptomatically with measures to decrease intracranial pressure such as steroids, mannitol, and, occasionally, serial lumbar punctures—particularly if the aneurysm has already been clipped. Frequently, the hydrocephalus will subside, and these patients will not require a permanent shunt, although a few will. The third form of hydrocephalus is the delayed form, which usually develops after the second week as the syndrome of "normal pressure hydrocephalus." In fact, the majority of these patients have high-normal or slightly elevated in-

tracranial pressure and ventriculomegaly with decreased mentation, difficulty in ambulation, and, occasionally, incontinence. They respond very readily to ventricular shunting.<sup>3</sup>

After SAH, patients frequently develop arrhythmias and other EKG abnormalities suggestive of ischemia, particularly subendocardial ischemia. These abnormalities are due to disturbances in the hypothalamic-pituitary axis. They are most commonly due to excessive outpour of catecholamines. Although the origin of these abnormalities may be cerebral, the consequences are clearly cardiac and must be treated as such. Arrhythmias must be treated with proper cardiac measures and so must ischemic changes, which frequently reflect true subendocardial or even transmural infarction, as are occasionally found in these patients at autopsy.<sup>11</sup>

Electrolyte disturbances occur

frequently after SAH. Hyperosmolar states with a markedly increased serum sodium level develop rarely and then usually in patients who are in very bad neurological condition. This is an extremely difficult state to treat, because the treatment, which involves large infusions of hypoosmolar solutions, exacerbates the intracranial hypertension almost invariably present in these patients. We have seen very few patients recover from this condition. The only way to prevent it is to avoid excessive dehydration and stop hyperosmolar infusions in patients treated for intracranial hypertension once the serum sodium and osmolality reach worrisome levels (usually serum sodium of about 150 meq% and serum osmolality of 310 milliosmols %). Hyponatremia occurs much more frequently. The more severe the SAH, the more likely the patient will de-

Table 2

*Non-giant anterior circulation aneurysms\**

| Location | Number | Result (%) |          |         |
|----------|--------|------------|----------|---------|
|          |        | Good       | Poor     | Dead    |
| ICA      | 142    | 134 (94.4) | 7 (4.9)  | 1 (0.7) |
| ACA      | 113    | 100 (88.5) | 11 (9.7) | 2 (1.8) |
| MCA      | 88     | 77 (88.0)  | 5 (5.7)  | 6 (6.8) |
| TOTALS   | 343    | 311 (90.7) | 23 (6.7) | 9 (2.6) |

\*Patients operated by the author between 1980 and 1987 at the Massachusetts General Hospital.<sup>12</sup> ICA = internal carotid artery; ACA = anterior cerebral artery; MCA = middle cerebral artery; Good = independent with or without mild neurological deficit; Poor = incapacitated with moderate or severe neurological deficit.

Table 3

*Giant anterior circulation aneurysms\**

| Location | Number | Result (%) |          |         |
|----------|--------|------------|----------|---------|
|          |        | Good       | Poor     | Dead    |
| ICA      | 38     | 33 (86.8)  | 2 (5.3)  | 3 (7.9) |
| ACA      | 3      | 2 (66.7)   | 1 (33.3) | 0       |
| MCA      | 20     | 17 (85.0)  | 2 (10.0) | 1 (5.0) |
| TOTALS   | 61     | 52 (85.2)  | 5 (8.2)  | 4 (6.6) |

\*Patients operated by the author between 1980 and 1987 at the Massachusetts General Hospital.<sup>13</sup> ICA = internal carotid artery; ACA = anterior cerebral artery; MCA = middle cerebral artery; Good = independent with or without mild neurological deficit; Poor = incapacitated with moderate or severe neurological deficit.

velop hyponatremia. Until a few years ago, clinicians assumed this hyponatremia was due to *inappropriate* ADH secretion. It has gradually become well established that the hyponatremia in these patients develops as a result of an excessive urinary loss of sodium with consequent intravascular volume depletion.<sup>12</sup> ADH secretion is then *appropriately* augmented in response to the volume depletion. The result is hyponatremia, which can become severe and symptomatic. The logical treatment is intravascular volume replacement with plasma expanders and restriction of free water intake. Replacement with hyperosmolar salt solutions should be reserved for patients with severe symptomatic hyponatremia; replacement with hypo-osmolar or iso-osmolar electrolyte solutions is ineffective because the kidneys continue to secrete sodium and hold onto water, which exacerbates the hyponatremia.

### Surgical Treatment

The definitive treatment of an intracranial aneurysm is to surgically clip its neck. New modalities such as intravascular balloon occlusion are being investigated and used selectively in specialized centers but have not yet reached a level of safety or efficacy that would warrant more generalized use. Some giant aneurysms cannot be treated by clip occlusion of the neck and must be treated with proximal arterial occlusion or trapping, sometimes accompanied by an extracranial to intracranial bypass procedure.<sup>13</sup> A discussion of the special surgical techniques currently used is not within the scope of this review, but a brief mention of two important items, the timing of surgery and surgical results, seems in order.

There has been a clear shift toward early definitive surgery in cases of SAH due to a ruptured aneurysm. It has become apparent that surgery can be done almost as safely, although with slightly more difficulty, during the first two to three days after an SAH. The brain is frequently swollen during this time, but cerebrospinal fluid drainage and intravenous administration of hyperosmo-

lar agents, such as mannitol, and hyperventilation can correct this sufficiently to allow for safe surgery. At this early stage, vasospasm is usually not yet present. Early definitive clipping of the aneurysm prevents rehemorrhage and allows for a more aggressive treatment of vasospasm with induced hypertension, which may be dangerous when the aneurysm has not been clipped. It is important to know, however, that although there are many anecdotal reports suggesting an advantage for early surgery, a recently reported large, nonrandomized international study has shown that overall management results were not significantly different among patients operated on within the first three days after SAH than in patients whose surgery

was postponed for at least 10 days.<sup>14</sup> Clearly, not every patient with an SAH should have early surgery. We prefer to delay surgery with patients who are in bad neurological condition, because many of these patients seem to improve over the next several days, and surgery appears to be safer when they are in better condition, even though they will run the risk of rebleeding during the waiting period. We also prefer to defer surgery until the initial brain swelling has subsided in patients with technically demanding aneurysms (including most giant aneurysms and many aneurysms of the basilar bifurcation), particularly if significant brain retraction will be required. Waiting 10 to 14 days appears appropriate with most of these patients.

Table 4

#### Vertebro-basilar aneurysms\*

| Location & Size  | Number | Late Result (%)** |         |         |         |
|------------------|--------|-------------------|---------|---------|---------|
|                  |        | Good              | Fair    | Poor    | Dead    |
| Basilar top      |        |                   |         |         |         |
| Non-giant        | 58     | 47 (81.0)         | 5 (8.6) | 5 (8.6) | 1 (1.7) |
| Giant            | 6      | 1                 | 1       | 2       | 2       |
| SCA              |        |                   |         |         |         |
| Non-giant        | 6      | 6                 | -       | -       | -       |
| Giant            | 1      | -                 | -       | -       | 1       |
| Basilar trunk    |        |                   |         |         |         |
| Non-giant        | 4      | 4                 | -       | -       | -       |
| Giant            | 1      | -                 | -       | 1       | -       |
| PCA              |        |                   |         |         |         |
| Non-giant        | 3      | 3                 | -       | -       | -       |
| Giant            | 4      | 3                 | 1       | -       | -       |
| Vertebral & PICA |        |                   |         |         |         |
| Non-giant        | 16     | 16                | -       | -       | -       |
| Giant            | 3      | 2                 | -       | -       | 1       |
| TOTALS           | 102    | 82 (80.3)         | 7 (6.9) | 8 (7.8) | 5 (4.9) |

\*Patients operated by author between 1980 and 1989 at the Massachusetts General Hospital and the University of Minnesota Hospital.

\*\*These results indicate maximal improvement achieved; usually several weeks to months after surgery.

SCA = superior cerebellar artery; PCA = posterior cerebral artery; PICA = posterior inferior cerebellar artery; Good = independent with or without mild neurological deficit; Fair = independent with moderate neurological deficit; Poor = incapacitated with moderate or severe neurological deficit.



Surgical results have improved significantly during the last 10 or 15 years, mostly as a result of technical developments such as the operating microscope, specialized aneurysm clips, effective hyperosmolar solutions to reduce brain swelling, and safe neuroanesthetic techniques. In 1988, we compiled our personal results with intracranial aneurysms of the anterior circulation and with giant aneurysms during a seven-year (1980-1987) period at the Massachusetts General Hospital.<sup>2,13</sup> These results are given in Tables 2 and 3, respectively. The results have not been updated recently, but it is our impression that they have not changed significantly over the last three years. Aneurysms of the posterior circulation, particularly of the basilar bifurcation, are technically more difficult, and the results are significantly worse than with anterior circulation aneurysms. For this reason we have analyzed them separately, and a review of our personal experience with these aneurysms over the last decade is shown in Table 4. These personal results are by no means unique, and are comparable to results from several other centers where there is a special interest in aneurysm surgery.<sup>15,16,17</sup> MM

*Roberto Heros is the Lyle A. French professor and chair of the Department of Neurosurgery, University of Minnesota, Minneapolis.*

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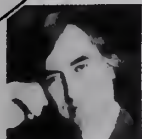
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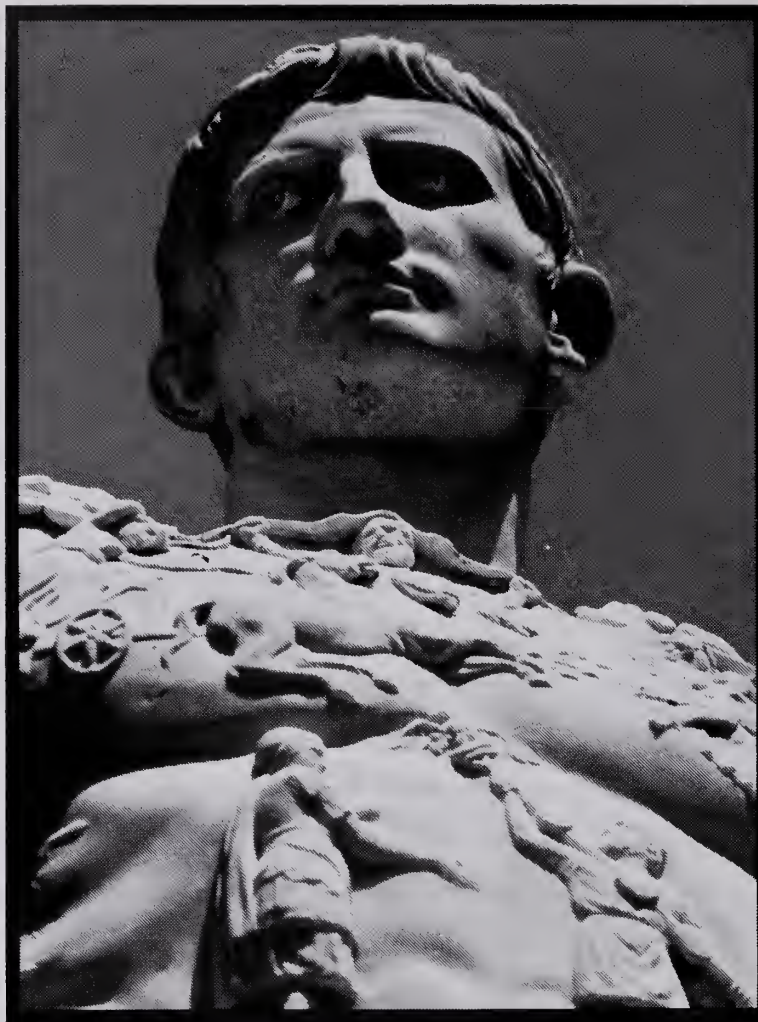
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# Informed Consent

## *Opening the Doors to Physician-Patient Communication*

*First of two parts*

**A**lthough it has been many years since the doctrine of informed consent was first recognized in medical malpractice cases, physicians still express much confusion and misunderstanding about the basic elements of the doctrine, their legal obligations, and how obtaining informed consent can become a routine element of their medical practices.

To address these issues, the Midwest Medical Insurance Company (MMIC) held a roundtable discussion of informed consent by physicians, insurance professionals, and a defense attorney. Participating in the discussion were:

**Paul Sanders, M.D.:** A family physician from Cambridge, Minnesota, Dr. Sanders is chief executive officer of the MMA and is a member of MMIC's board of directors. He chairs the MMIC Risk Management Committee and is past chair of the Professional Liability Committee of the American Academy of Family Physicians.

**Robert Barnett, M.D.:** Dr. Barnett is a practicing orthopedist with Orthopaedic Foot & Ankle Associates in St. Paul, Minnesota. He has been a member of the MMIC Claims Committee for 10 years.

**John Degnan, Esq.:** Mr. Degnan is a partner in the Minneapolis law

firm of Bassford, Heckt, Lockhart, Truesdell, and Briggs. He practices extensively in the defense of medical and legal malpractice claims and has been actively involved in MMIC risk management activities for several years.

**Jack Kleven:** As MMIC's vice president of claims, Mr. Kleven works closely on risk management issues as they contribute to claim experience. Prior to joining MMIC in 1989, he had extensive experience in malpractice claim handling with the St. Paul Company.

The discussion was moderated by **Elizabeth Lincoln**, MMIC's vice president of risk management.

### *What Is Informed Consent?*

**Lincoln:** From the risk management perspective, we describe informed consent as the result of a process during which a physician advises the patient of the significant risks, benefits, and alternatives to a proposed medical treatment. The role of patients in the process is to ask any questions they have, make sure they understand the information given, and, on the basis of that information, either give their consent or decline the treatment. Our focus is on the fact that the obtaining of informed consent is a two-way process, but that the actual consent comes from the patient.

How does the law define informed consent?

**Degnan:** The elements of informed consent are set out in the instructions that are read to the jury in a malpractice trial. In order to win a case alleging lack of informed consent, the plaintiff must prove that 1) the doctor knew or should have known of the risk involved in the procedure or

the alternative to the procedure, 2) the risk or alternative was significant, 3) the physician failed to discuss it with the patient, 4) a reasonable person in the patient's position would not have consented to the treatment if that risk or alternative had been explained to him or her, and 5) there was a causal link between the lack of informed consent and the damage claimed by the plaintiff.

**Lincoln:** I have found that physicians frequently misunderstand the distinction between informed consent and the consent form that hospitals require patients to sign. Would you explain that distinction?

**Degnan:** In order for a physician to perform a procedure, the patient has to authorize, or give a general consent to, that procedure. If the patient doesn't, the physician may be liable for an "unconsented touching" that is known as a battery. For example, we would usually see a battery claim when a physician inadvertently operates on the wrong leg. The patient is

saying, "You didn't have my consent to operate on my perfectly good left leg, only on my ailing right leg."

The doctrine of informed consent goes further, requiring the physician not only to get the patient's consent but also to say, "This is the procedure we are proposing, these are the risks and alternatives to that procedure. Do you want to have it done?"

Consent, or authorization, and informed consent are two different concepts. It sometimes gets confusing when hospitals combine the form for the patient's general consent to treatment with the documentation of informed consent. These forms will say, "The doctor has discussed with me the risks, benefits and alternatives to the procedures," but in most hospitals, a nurse simply hands this form to the patient and asks for a signature. Physicians must understand that the informed consent portion of that documentation must still be preceded by the discussion with the patient.



**Lincoln:** It seems as though physicians frequently want to resist the whole concept of informed consent when it's discussed from the legal perspective. I almost get a sense that physicians are feeling, "Informed consent is just something the attorneys have imposed on us. Get the attorneys and courts out of our way and we'll be back in good shape."

Dr. Sanders, do you agree that informed consent is just a legal concoction, or does the doctrine serve a medical purpose as well?

**Sanders:** It definitely serves a medical purpose; it's a critical factor in how we relate to our patients.

Part of the misunderstanding physicians have about informed consent is taught to us through many of the "throwaway" publications we get that focus solely on what the physician legally owes the patient and the need to document the patient encounter. Those are obviously important elements, but the articles give little regard to the concept of the *relationship* with the patient, which is most important from the physician's point of view.

I do not view informed consent as just a single event that is taken care of by a brief conversation and a signature someplace. Rather, I see the informed consent of the patient being a product of an environment the physician has created that gives the patient the opportunity to become informed throughout his or her entire treatment, not just at the hint of surgery or some specific procedure. Does that make any sense from the legal perspective?

**Degnan:** It does from a persuasion standpoint. A jury is more likely to believe that a doctor adequately informed the patient about a particular procedure if it can be shown that the doctor is routinely approachable and takes time to respond to patient questions and concerns.

More importantly, if a doctor looks at informed consent the way you described—as an ongoing relationship with the patient—it is less likely that there will even be a claim of lack of informed consent, because the patient will have developed a good rapport with the physician. That

element of rapport is a critical factor in claim prevention.

**Sanders:** To many physicians, unfortunately, informed consent means only that we have complied with some requirement of documentation of risks on paper. We don't think in terms of whether we've established a relationship with the patient, sat down and talked about the case, and talked about the potential adverse outcomes.

**Lincoln:** In talking about the focus on documentation, you seem to be saying that physicians tend to skip over the first and most critical step of informed consent—the exchange of information. If physicians believe that informed consent is only related to documentation, they are starting from the question, "How do I prove what I've done?" rather than looking at what needs to be done in the first place.

**Sanders:** That is true. I think that, while documentation is important and we'll be discussing that later, physicians need a better understanding of the process of exchanging in-

formation. Commonly used physician jargon belies what is supposed to happen. I frequently hear "I gave the patient his informed consent." Informed consent is not something physicians can give patients. It's the result of an exchange; it's a discussion you have with a patient, and the outcome is that the patient gives the physician his or her informed consent to the treatment. I don't think a lot of physicians understand the basic

concept that, at the end of their discussion, it's the *patient* who gives consent to proceed, and the consent he or she gives should be well-informed.

**Barnett:** I agree. I don't know what most physicians are doing, but I have a suspicion. Many physicians don't want to take the time to talk to their patients, and they hide under the guise that the patient doesn't want to hear about risks. The patients I see in my office have been referred from somewhere else. Frequently, they say I'm a nice guy because I talk about their treatment. They tell me that their primary physician never talked to them. That's exactly what Dr. Sanders is talking about.

**Sanders:** The law may not talk about "relationships," but I suspect a defense attorney would have much less difficulty defending a physician on issues of informed consent if he or she could demonstrate that the physician had established an ongoing relationship with the patient, and that the physician routinely gave the patient the opportunity to sit and discuss treatment. That very process implies a lot of concern for the patient. It implies that the physician is willing to give his or her time and be attentive to the patient's questions and patient's need to understand the treatment.

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"Informed consent is  
not something  
physicians can give  
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discussion you have  
with a patient."

—Paul Sanders, M.D.

### *How Much of a Problem Is Informed Consent?*

**Lincoln:** A large percentage of the claims and lawsuits we see contain an allegation of lack of informed consent. How much of a problem do these allegations really cause in claims?

**Kleven:** MMIC has only made indemnity payments in a small number of cases in which lack of informed consent was the *primary* allegation. However, informed consent is still a very significant factor in claims. Plaintiffs' attorneys frequently throw in an allegation of lack of informed consent as a secondary issue, along with allegations of negligence in diagnosis or negligence in the performance of a procedure. This can

really muddy the waters and make the defense of a claim more difficult. It can also bolster the plaintiff's case if the negligence claim is a little shaky.

**Degnan:** I think plaintiffs' attorneys like to allege lack of informed consent because they perceive it to be an easier way to get to the jury than a standard negligence claim.

In most cases, the question of informed consent is a fact issue because the patient will say, "The doctor didn't tell me about this risk," and the doctor will say, "I did tell him." If an expert has testified that the risk was significant and that there was a causal link between the risk and the patient's damages, that fact issue will be sufficient to allow the case to go to the jury for deliberation.

**Barnett:** So, even though indemnity payments may not be frequent on strictly informed consent claims, the mere presence of the allegation of lack of informed consent may contribute significantly to defense costs.

**Sanders:** Do plaintiffs' attorneys sometimes use the issue of informed consent to damage the credibility of physicians on other issues, such as the question of negligent treatment?

**Degnan:** It is difficult to pinpoint what persuades a jury, but a plaintiffs' attorney can certainly argue that a lack of care in obtaining informed consent indicates a lack of appropriate medical care. It can help create an aura of a less-than-careful physician.

**Kleven:** It's clear that, even though we may not have lost a large number of cases strictly on the issue of informed consent, the allegation of failure to obtain informed consent can frequently jeopardize the defense of claims that might otherwise be defensible on the issue of negligence.

But, besides defense, there are other important aspects to consider. For a number of reasons, appropriately obtained informed consent can be very effective in deterring claims in the first place. First, the rapport that's established with patients through a good informed consent discussion may dissuade them from even wanting to sue the physician if

they have an adverse outcome. Second, informing patients about the risks before a procedure is performed removes the element of surprise that so often makes patients angry enough to sue. And finally, good plaintiffs' attorneys are unlikely to pursue a claim of questionable negligence if there is evidence of a good informed consent discussion.

We simply can't quantify the number of claims that are not brought

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"Appropriately  
obtained informed  
consent can be very  
effective in deterring  
claims in the  
first place."

—Jack Kleven

because the informed consent process was appropriately handled.

### *What Procedures Require Informed Consent?*

**Lincoln:** Physicians all seem to understand the need for obtaining informed consent for surgical procedures. However, there still seems to be a myth that these are the only procedures for which informed consent is necessary. For what other types of medical treatments should physicians be obtaining informed consent?

**Degnan:** The law merely says that physicians should obtain informed consent for any procedures involving a "significant risk" to the patient. It does not attempt to usurp medical judgment and list every procedure to which it could possibly apply. For starters, physicians should consider an informed consent discussion for any invasive procedure. Beyond that, remembering that the necessity of an informed consent discussion is viewed from the perspective of "the reasonable person in the patient's position,"

physicians need to use their judgment in determining when a reasonable person would want to know more information about the procedure.

**Sanders:** I fear that what physicians are really asking when they ask what clinic procedures they need informed consent for is, "For what procedures in the office do we need a signed consent form?" Again, I don't believe they are understanding the broader concept of informed consent, but are asking how many more pieces of paper they need.

I recommend that physicians start by obtaining informed consent for those procedures known to have a risk of severe adverse outcomes. We can't look just at surgical procedures but must include such treatments as chemotherapy or any procedure, however minor, that has a risk of sterility. For example, outpatient vasectomy definitely needs an informed consent discussion and documentation, even though it's a relatively simple procedure. Any time a physician gives any type of an anesthetic that has a potential for serious adverse outcomes, an informed consent discussion should be held. Stress tests and endoscopies are other examples of outpatient procedures that carry potentially serious risks. Even though the actual procedure may be very simple and the chance of complications small, if the risks are severe, the reasonable patient would certainly want to know about them.

**Lincoln:** What about the prescription of medications? There have been cases around the country where physicians have been liable for failure to obtain informed consent for medication therapy.

**Sanders:** Patients certainly are entitled to know about the potential adverse outcomes from drugs we are prescribing. Because of increased public awareness about drugs, it is important that physicians accept our responsibility for informed consent discussions. We've known for years, for example, that gold therapy for rheumatoid disease is a wonderful, but very dangerous, therapy and should be monitored. Those are the



kinds of things we should be talking to patients about.

Another type of medication problem is when patients have allergies—to penicillin, for example. A huge number of patients say they are allergic to penicillin, so we try to avoid using the drug and may try cephalosporins. We know, however, that those drugs, too, will cause a reaction 5 percent to 10 percent of the time. I believe the physician has an obligation to inform the patient that he or she may have a reaction to the drug used.

**Barnett:** Generally speaking, I don't believe anesthesiologists are doing a good job of obtaining informed consent for anesthesia. Given the serious risks of anesthesia, I certainly feel they owe patients an explanation of what it involves. As a surgeon, it's very important for me to know that my patients understand the risks of anesthesia, because I am likely to be named in a lawsuit if something goes wrong.

**Lincoln:** HIV testing is another procedure for which we're definitely recommending physicians obtain informed consent. Because of the potentially very serious medical, psychological, and social implications of the test, it is critical that patients be well-informed and counseled before the test is performed.

In addition to times when an informed consent discussion is inarguably necessary and other times when physicians must use their own medical judgment about the question, there are also some situations in which the law specifically does not require a physician to obtain the patient's informed consent before proceeding with treatment. Mr. Degnan, can you briefly explain those exceptions?

**Degnan:** Obviously, in a true emergency a physician does not need to delay treatment in order to discuss the necessary procedures with the patient. Also, under the "therapeutic privilege," a physician does not have to inform the patient about the risks of treatment if the physician determines that the information would cause harm to the patient. However,

these exceptions should be used very sparingly.

### *What Should the Patient Be Told?*

**Lincoln:** One of the most common questions I hear from physicians is, "What exactly do we need to tell the patient during an informed consent discussion?" There's a misconception that physicians are required to recite the PDR before writing a prescription or quote a medical textbook before recommending a procedure. Can we clarify what needs to be discussed?

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"Consent and  
informed consent are  
two different  
concepts."

—John Degnan

**Degnan:** There isn't any legal cookbook answer to that question. As we discussed earlier, the law says that the physician should discuss risks and alternatives that would be significant to a reasonable person in the patient's position in deciding whether to consent to treatment. Most reasonable people would probably define significance in terms of the frequency and severity of risks. Physicians are in the best position to determine the significant risks and alternatives to any given procedure, viewing them from the perspective of the reasonable patient. With changes in technology, the risks of treatment are constantly changing. I think it is appropriate that the courts have stayed away from trying to make lists of what doctors should tell their patients and, instead, left that determination to medical judgment and the "reasonable person."

**Lincoln:** I agree. Physicians sometimes tend to view their obligation in terms of the patients who want to know every last intricate detail about their treatment. While physicians obviously should attempt to answer

all of their patients' questions, that is not the legal standard applied for informed consent. Reasonable people are probably going to want to know the most frequent risks, the most severe risks, and any risks that may be unique to their own cases. They are also going to want to know about realistic medical alternatives. That is not a heavy burden for physicians.

**Barnett:** When I talk with residents, I find that they are very intimidated by the concept of discussing significant risks, because they tend to think of significance in terms of percent chances of a risk occurring. Do they need to discuss a 1 percent chance of loss of a limb? A 2 percent chance of some other complication? Does the law put any numbers or percentages on the issue?

**Degnan:** I can't think of any cases in which the court has defined the need to disclose risks in terms of the percentage chance of occurrence. I do know of one trial on an informed consent claim where a heart surgeon testified about percentages of morbidity and mortality with open-heart surgery. But, despite percentages being used in testimony, the jury will still be instructed to decide based on what the reasonable person would want to know. They don't decide based on percentages set by the court or lawyers.

**Kleven:** One area where the level of disclosure by physicians needs to be greater is with elective procedures. We have a bigger problem in claim handling if an allegation of lack of informed consent is made with regard to totally elective treatment. Cosmetic procedures are particularly difficult because patients can more easily demonstrate that they would not have undergone the procedure if they had been advised of the risks.

I strongly recommend that physicians have a much more in-depth discussion with patients about elective treatments. What are the chances of success? What is the goal of the procedure? What is it going to do for the patient? What is it not going to do? What can go wrong? The reasonable patient would certainly want these questions answered before consent-

ing to a procedure that may not be medically imperative.

**Lincoln:** What about discussing alternatives? How far does the physician need to go in talking about other treatment options? If physicians think A, B, and C are the realistic alternatives, do they also need to explain D, E, and F?

**Degnan:** Again, it goes back to what a reasonable person would see as a reasonable alternative. I know that's a very broad statement, but the law has left it to physicians and their patients to determine what information should be exchanged.

A recent decision on informed consent by the Minnesota Supreme Court clarified that physicians in Minnesota do not need to discuss additional—as opposed to alternative—methods of treatment to obtain adequate informed consent. In that case, the plaintiff argued that the physician should have disclosed the alternative of hospitalizing the patient, in addition to recommending bed rest at home. The Court held

that, since the treatment in the hospital would have been the same—bed rest—and would not have altered the patient's outcome, it was merely an additional treatment, rather than an alternative. It did not, therefore, need to be specifically disclosed as an element of the informed consent discussion. I think the focus of future cases on the same type of question will be "Would it have altered the outcome?"

**Barnett:** Physicians obviously don't want lawyers telling us how to practice medicine, but, at the same time, the vagueness of the legal standard can create a dilemma for physicians.

**Kleven:** It can create a dilemma, but it doesn't have to. If physicians focus on communicating reasonably with their patients and telling them about the risks and alternatives that physicians would want to know about if they were in the patient's shoes—or that they would want their families to be informed about—it becomes common sense. Physicians need to look at informed consent as just good medical practice and not try to sec-

ond-guess the legal standard.

Physicians seem to be getting most concerned about whether they need to discuss all of the conceivable, minor risks and alternatives. They need to understand that we're not seeing or losing informed consent claims on the minor, infrequent complications. The cases we're concerned about involve common alternative treatments and risks that any physician would agree are frequent or severe enough that the patient had a right to know about them. In my opinion, it is reasonable that failure to disclose such alternatives and risks may trigger liability. MM

*Part 2 of "Informed Consent: Opening the Doors to Physician-Patient Communication" will appear in the November 1990 Minnesota Medicine. Topics to be covered by the panel include: responsibility for obtaining informed consent, documentation of informed consent, and practice tips for conducting informed consent discussions.*

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# Beware the UBIT

## —Taxes on Qualified Plan Investments Can Bite

Angela M. Bohmann, J.D.

Your partner tells you that a number of radiologists in your area are investing in a limited partnership that will purchase and operate a magnetic resonance imaging (MRI) unit. The partnership expects that its revenues will more than cover the costs of financing and operating the unit, and so will generate profit for the physicians who have invested in the partnership. It sounds like a good deal to you, but you lack the \$20,000 cash investment. Your partner says, "I have a great idea—let's use the cash in our profit-sharing plan to invest in the limited partnership."

But is this a "great idea"? Before committing the plan to make the investment, you should consider both the taxes the qualified plan must pay as a result of the investment and other restrictions that apply generally to qualified plan investments.

### Unrelated Business Income Tax (UBIT)

If your qualified plan and trust invests in the limited partnership, the trust will have to pay income taxes on its share of the partnership's taxable income—regardless of whether any cash is distributed from the partnership. That is right: In some instances a qualified trust must pay taxes on its income.

A qualified plan and trust is a tax-exempt organization. Like other tax-exempt organizations, it is subject to an "unrelated business income tax," or UBIT. This is the tax payable by tax-exempt organizations on income earned in businesses unrelated to the organization's tax-exempt purpose. The tax-exempt purpose of a qualified plan and trust is the payment of retirement benefits. The Internal Revenue Code specifically pro-

vides that no trade or business is related to that purpose. A qualified plan and trust can invest in all types of financial products, but investments in any trade or business will be taxed.

In addition to investments in a

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"In some instances a  
qualified trust must  
pay taxes on its  
income."

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trade or business, certain other investments can subject a qualified plan and trust to tax, including the following:

- An investment in debt-financed property: This is any property that is purchased with debt, including the use of margin accounts to buy stocks. There are exceptions to the debt-financed property rules for certain real estate investments.

- Partnership investments: Under Section 513(b)(2) of the Internal Revenue Code, a qualified plan that invests in a partnership is treated as conducting any trade or business conducted by that partnership. This rule applies regardless of whether the qualified plan is a limited partner or a general partner in the partnership.

- Certain publicly traded limited partnership interests: Income from a publicly traded limited partnership interest acquired after December 17, 1987, is always considered unrelated business taxable income, regardless of whether the partnership conducts a trade or business or simply invests in other securities.

The qualified plan investment that you are contemplating is an investment in a limited partnership. The

limited partnership will conduct the trade or business of operating the MRI unit. By virtue of its status as a limited partner in that partnership, your qualified plan will be treated as conducting an "unrelated trade or business." The income from that unrelated business will be subject to income tax at the regular trust tax rates.

An IRS Form 990-T must be filed for the qualified trust to report its unrelated business taxable income each year that its gross unrelated business taxable income exceeds \$1,000. This form is in addition to the Form 5500 that the plan must otherwise file. The form is due and taxes must be paid by the 15th day of the fourth month after the close of the trust's taxable year (April 15 for a calendar-year trust). Quarterly payments of estimated taxes generally must be made if the amount of the taxes will exceed \$500.

The plan participants receive no benefit from the tax payments. This is true even if the limited partnership interest is held in a self-directed investment account for one of the physicians. If the partnership interest is ever distributed from the plan to a plan participant (e.g., the physician for whose account the partnership interest was purchased), the participant will still have to pay taxes on the full value of the distribution, including the limited partnership interest, even if the trust has already paid taxes on its share of the limited partnership income.

The taxes paid by the trust will reduce the plan's return on its investment in the limited partnership interest. If the return is otherwise high, the after-tax rate of return may be as good as or better than alternative plan investments. Nevertheless, before using plan assets to make this in-



vestment, you should consider a few other issues.

### *Other Considerations*

Plan investment decisions are made by trustees or investment managers who are fiduciaries. Fiduciaries must make plan investments that are prudent, made for the exclusive benefit of plan participants, and that result in a diversification of plan assets. Investments must also allow the plan to remain sufficiently liquid to meet distribution needs.

A limited partnership investment can be more speculative than an investment in publicly traded securities. A limited partnership investment also provides less liquidity than an investment in a publicly traded security. The plan fiduciary must consider these facts, as well as the plan's need to diversify its assets, before determining that the limited partnership investment is prudent.

A qualified plan must be operated for the exclusive benefit of plan participants. Because the physicians who have used plan assets to invest in the limited partnership may also receive a benefit outside the plan through patient referrals to the MRI unit, there is a risk that the investment could be viewed as not solely benefiting plan participants. For all the above reasons, a plan fiduciary could find it unwise to invest in the limited partnership.

These other considerations generally can be alleviated if the plan involved is a defined contribution plan (a profit-sharing, money-purchase, or target-benefit plan) that allows directed investments by plan participants. If each plan participant has the right to direct the investment of his or her account into a broad range of investments, a physician could decide to invest his or her account in the limited partnership. The plan fiduciary could then be relieved of the burden of complying with diversification, liquidity, exclusive benefit, and prudence requirements.

Of additional concern are the "prohibited transaction" rules that govern qualified plans. Under these rules, if a plan is involved in a "prohibited transaction," those responsible for the transaction can be sub-

ject to an initial tax of five percent of the amount involved each year the transaction continues. If the transaction is not corrected before the initial tax is assessed or a notice of deficiency issued with respect to the tax, an additional tax of 100 percent can be imposed.

The prohibited transaction rules are technical and complicated. They prevent "parties in interest" or "disqualified persons" from entering into transactions in which the parties in interest benefit or have a conflict of

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"Consider wisely  
your plan  
investments,  
especially  
investments in  
limited partnership  
interests."

interest. Such "parties in interest" or "disqualified persons" include plan fiduciaries, plan service providers, plan sponsors, owners of plan sponsors, different entities owned by or related to the foregoing, and certain officers, directors, shareholders, highly compensated employees, and family members of the foregoing. The rules even prohibit fair market value transactions, such as sales or leases, between plans and parties in interest.

You and your partners are probably parties in interest with respect to your plan. You also may benefit from the ownership of the MRI unit through referral fees or consulting fees. These benefits would come to you as a physician, rather than as a participant in the qualified plan that owns the limited partnership interest. Because there is that potential benefit and because there may be a conflict of interest, it is possible that a prohibited transaction could occur either in the purchase of the limited partnership interest or in the operation of the MRI unit. It is beyond the

scope of this article to analyze all potential prohibited transactions. However, before committing the plan to invest in the limited partnership, you should ask your attorney or plan adviser to perform that analysis.

If you have already had your qualified plan purchase a limited partnership interest before you read this article, you should also check with your attorney or plan adviser before you try to dispose of the interest. If you are a party in interest with respect to the plan, your purchase of an asset from the plan—even at fair market value—is a prohibited transaction. Therefore, you may not simply buy the limited partnership interest from the plan. Before purchasing the interest, you must ask the Department of Labor for an exemption from the prohibited transaction rules. Requesting an exemption is time consuming and expensive, and it carries no guarantee of being granted.

So, consider wisely your plan investments, especially investments in limited partnership interests. If you purchase a limited partnership interest without considering the consequences, you may find yourself with a plan investment that is both subject to tax and difficult to remove from the plan. MM

*Angela Bohmann is a partner with the Minneapolis law firm of Leonard, Street, and Deinard and practices in the areas of employee benefits and tax law. © 1990 Angela M. Bohmann.*

## Exerting Our Collective Influence

Richard B. Tompkins, M.D.

As part of the Minnesota Medical Association's outreach program, I have been traveling throughout the state to meet with members of the county medical societies. I welcome this opportunity to meet with you and to ask for your help and support.

We will face issues in the months ahead that could have a profound effect on the way we practice medicine and on the quality of health care in our state. In November, we will elect a governor, all of the members of the Minnesota House and Senate, one U.S. Senator, and all eight U.S. Representatives to Congress.

An election year offers opportunities to become involved and exert our influence. We can help elect candidates who will share our concerns about access to health care in Minnesota by volunteering in election campaigns, attending fund-raisers, and contributing to campaign coffers. This is an ideal time to build relationships and become acquainted with policy-makers.

In order to identify the candidates most deserving of our support, we will need to be well-informed. Our MMA outreach programs provide background on important issues and a preview of what to expect at the Legislature in 1991. It's an excellent way to meet legislators and keep up to date on MMA concerns.

### CLIA '88

One serious and immediate concern is the Health Care Financing Administration's (HCFA's) proposed regulation of clinical laboratory tests performed in physicians' offices. I have written to HCFA representatives to let them know that these overly stringent rules could close office labs and cause unnecessary delays in diagnosis and treatment



"An election year offers opportunities to become involved and exert our influence."

and could ultimately result in an increase in controllable diseases.

Laboratory tests conducted in the physician's office are fast, efficient, and enhance patient care. The proposed regulations would diminish or eliminate a physician's ability to provide these lab services and would unnecessarily increase health care costs.

The MMA has asked HCFA to reconsider the proposed CLIA '88 regulations and to make changes based on the following points:

- The list of tests in the waiver and Level I category should be expanded because it currently does not include several appropriate tests for that level.
- Qualified laboratory technicians should be allowed to supervise Level I labs. Under the current proposal, a Level I lab must have a licensed M.D. or D.O. as its medical director.
- Changes need to be made in the supervisory requirements that would allow for patients to have

access to necessary diagnostic testing. Most primary care practices and hospitals conduct vitally important diagnostic testing that would fall under the proposed Level II category. Most of these practices could not afford the supervisory staff pathologist or Ph.D.-level scientist that would be required under the new rules. In many rural areas, there is no pathologist available or willing to serve as a supervisor.

- The requirement that a graduate medical technologist with three years of medical experience must be present on the premises every time a test is performed would close most rural Minnesota physician and hospital labs.

- The requirement that a Level I laboratory refer abnormal test results for a previously undiagnosed condition to a Level II laboratory should be eliminated because it is costly and clinically unnecessary.

- A new level should be created to allow physicians to identify tests they perform themselves and for which they have successfully completed proficiency testing.

Many of you have responded to our MMA Legislative Alert and an article in the *Monitor* asking you to contact HCFA and cite examples from your own practice to reinforce our objections. Responding to pressure from organized medicine, HCFA has twice extended the period for comments on these regulations. The most recent extension was until September 19, 1990, and we hope the result will be a more reasonable and appropriate set of regulations. If HCFA is unable to revise the proposed rules, it will be necessary to amend the statute by Congress, and you may receive additional MMA Alerts regarding that legislation.

*Continued*



## Medicare Reimbursement

Reimbursement issues also continue to top the MMA's priority list. On the federal level, the MMA's main goal will be working for fair reimbursement for our services to Medicare patients. In last month's President's Letter, I described our efforts to urge Congress to postpone the 125 percent cap on balance billing for Medicare services. We are working with HCFA and our Minnesota Congressional delegates to correct this problem and to reform the geographic disparities in Medicare reimbursement. Congress will be under tremendous pressure to cut the budget in the next few months, and we will need your help to press for fair reimbursement for Minnesota physicians. Thirty-three states have joined us in the Geographic Coalition, created last year to address reimbursement inequities. Texas became the newest coalition member this summer, adding significantly to our already broad-based support.

## Medicaid Reimbursement

At the state level, increasing reimbursement for Medical Assistance (MA or Medicaid) and General Assistance Medical Care (GAMC) will be our top legislative objectives. Since March, the MMA has been participating in the Medicaid Task Force, which was appointed by Gov. Rudy Perpich to make recommendations about Medicaid reimbursement levels. The MMA provided the Medicaid Task Force with two studies that illustrate the magnitude of the problem. One study shows that, nationally, the average overhead costs for a physician's office are 56 percent of cash collected, not including payment to the physician. In Minnesota, average overhead costs range from 60 percent to 80 percent of charges, with primary care physicians falling into the high end of that range. For many physicians, Medicaid reimburses only 50 percent of billed charges—not even enough to cover overhead costs. The Medicaid Task Force is recommending a 25 percent increase in physician reimbursement for obstetrics (except for cesarean sections) and pediatrics and a

35 percent increase for nonsurgical primary care services.

We need your help to convince the Legislature to increase the low Medicaid reimbursement rates that are threatening Minnesotans' access to health care. Some physicians are being forced to limit the number of

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**"It is vital that  
physicians express  
their collective  
voice."**

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Medicaid patients they will accept, and it is becoming increasingly difficult to attract new physicians to rural Minnesota. A survey conducted last fall by the Minnesota Hospital Association and the MMA showed that we need 200 more physicians in rural Minnesota; another MMA survey revealed that most rural physicians believe there already is a crisis in access to health care in rural Minnesota. In view of a large projected revenue shortfall in 1991, increasing reimbursement levels will be a difficult task. Every MMA member should be talking to his or her legislators about this issue.

## Health Care Access

Health care access in both rural and urban areas will also continue to receive considerable MMA attention. We are playing a key role in developing standards for the basic benefits that should be provided in any state health plan. By the end of October, the MMA Medical Benefits Task Force, chaired by A. Stuart Hanson, M.D., will complete a draft report defining the standards for a basic package of health care and will present its recommendations to the MMA Board of Trustees and to the Health Care Access Commission, which is now developing a plan that will guide the Legislature's efforts to provide health insurance for Minnesota's uninsured. We hope MMA's standards will become an integral part of the commission's report to the Legislature in January 1991. The Access

Commission has asked the Medical Benefits Task Force to provide:

- A broad package encompassing primary and preventive as well as catastrophic medical care,
- A list ranking medical services in order of priority, and
- Suggestions for ways to improve the delivery of care to make the most efficient use of health resources.

The work of the MMA Medical Benefits Task Force will form a solid foundation upon which the state will be able to construct a system of access to care for all Minnesotans. Since the Access Commission's latest actions indicate that it intends to move into reform of the entire health care system, it is vital that physicians be informed and express their collective voice through the MMA.

The place to start is your county medical society. Be sure to attend the MMA outreach program in your area. We will need the support and participation of motivated and politically involved physicians working through the county medical societies to achieve our common goals. MM

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## People and Places Making Medical News

### People .....

#### National Red Cross Post

American Red Cross National Headquarters named Jeff McCullough, M.D., as its interim senior vice president of Blood Services. McCullough, who is head of the Red Cross blood center headquartered in St. Paul, accepted a one-year appointment effective September 5 as the top executive overseeing 54 blood centers throughout the United States. He will be based at Red Cross National Headquarters in Washington, D.C.

McCullough, who replaced the retiring Llewellys Barker, M.D., said he plans to return to the St. Paul Red Cross upon completion of the interim assignment. A search for a permanent successor for the National Headquarters position will be undertaken.

McCullough also is a professor in the Department of Laboratory Medicine and Pathology at the University of Minnesota Medical School and is director of the blood bank at the University of Minnesota Hospital.

#### 'U' Cardiology, Peds Appointment

Albert P. Rocchini, M.D., has joined the University of Minnesota as the Ruben-Bentson Professor of Pediatrics and director of its Division of Cardiology. Rocchini received his medical degree from the University of Pittsburgh in 1972 and was an intern and resident at the University of Minnesota. He has been at the University of Michigan since 1979, where he was a professor of pediatrics, director of the Cardiac Catheterization Laboratory, and director of the Preventive Cardiology Program.

#### Health Services Award

Minnesota Commissioner of Health Sister Mary Madonna Ashton in August presented a Certificate of Recognition award to James Lehmann, M.D., for his significant contribution to community health services in Minnesota through his work with Carver County Community Health Services. Lehmann, who recently resigned from his position as medical consultant to the Carver County Community Health Services, has been an active spokesperson for community health services in the county and a strong advocate of health screening, immunizations, and HIV, AIDS, and other education efforts. He also served as a member of the Carver County Community Health Services Advisory Committee.

### Places .....

#### Angeion Subsidiary

Angeion Corporation of Plymouth, Minnesota, a manufacturer of cardiovascular products, in August announced that it will form a subsidiary company, named AngeLase, to take over Angeion's major research and development project—a nonsurgical, percutaneous cure for arrhythmia. Angeion officials said the company plans to invest \$1.5 million in the subsidiary.

In the technique to be completed by AngeLase, a specially designed catheter is inserted through the skin into an artery or vein and attached to the wall of the heart. Laser energy is then fired in small doses and delivered with precision to kill a small number of cells within the heart that are causing the arrhythmia by sending conflicting messages.

Laser energy is currently being used during open-heart surgery to

treat arrhythmias successfully. The open-heart laser procedure is costly and has a high mortality rate. Currently, there is no nonsurgical cure for arrhythmias.

#### Debt-ridden Indian Clinic

An audit in August of St. Paul's only medical clinic for Native Americans, the Urban Indian Health Clinic, revealed an alarming and growing debt. According to city health department records, the clinic owes at least \$146,000, up from a \$30,000 debt in January. Clinic director Gene Begay hopes federal moneys will pull the clinic above water, but federal legislation providing funding for Native American health care faces several hurdles before final approval. Meanwhile, the clinic has been unable to pay its physicians regularly and has cut back several medical services.

The 12-year-old clinic will receive about \$109,000 from the city, county, and state this year, about half of what Begay requested.

#### Alzheimer's Drug Test Site

St. Paul-Ramsey Medical Center has been selected by Janssen Research Foundation of Johnson and Johnson Pharmaceutical Company to test Sabeluzole, a new medication that may slow down or stop memory loss in people diagnosed with probable Alzheimer's disease. Hydergine, the only FDA-approved drug for treating Alzheimer's, was deemed ineffective in a recent *New England Journal of Medicine* report.

Alzheimer's afflicts an estimated 2.5 million Americans. Its cause is unknown, but the death of



brain cells is one of its hallmarks. It is believed that Sabeluzole acts as a protective agent to slow down the rate of death or injury to brain cells. European tests done on the effectiveness of Sabeluzole showed that administering the drug to healthy elderly increased their ability to retain newly learned material such as recalling a series of words.

St. Paul-Ramsey Medical Center is one of fewer than a dozen research centers in the United States and the only Midwestern site selected to participate in the year-long international study.

## Socioeconomics .....

### Insuring all Minnesotans

The Minnesota Health Care Access Commission in August adopted a proposal calling for the Legislature to provide health insurance to all Minnesotans. The commission, formed by the 1989 Legislature and scheduled to issue final recommendations in December on how to make health care accessible and affordable to all Minnesotans, endorsed the proposal after releasing results of a survey that indicated more than 370,000 Minnesotans (8.6 percent) were without insurance for at least a month last year. More than 190,000 (4.5 percent) had no insurance at all last year, according to the survey conducted for the commission by Nicole Lurie, M.D., of the Hennepin County Medical Center and University of Minnesota researchers Michael Finch and Bryan Dowd.

The commission proposed establishing a state agency to reform Minnesota's health care system by offering the uninsured a choice of HMOs, PPOs, or similar plans and by taking over the supervision of Medicaid, General Medical Assistance, Children's Health Plan, Workers' Compensation, and the Minnesota Comprehensive Health Association, which insures those considered "high risk." Under the proposal, the state

would organize a health care delivery program through contracts with health plans, which would offer coverage at group rates to all Minnesotans. Individuals would purchase their coverage directly from the health plans, although employees of large organizations would probably continue to receive coverage through their employers. How the proposal will be funded and other details remain to be worked out in time for the 1991 Legislature to review.

In the random telephone survey of 10,000 Minnesotans, Lurie and colleagues found that, of the uninsured, 83 percent were without insurance because they couldn't afford it; only 2.5 percent said they were refused insurance because of poor health. Other reasons for lacking insurance included not wanting it and religious beliefs.

### Climbing Hospital Fees

Charges for an average patient visit to Twin Cities-area hospitals climbed 12.2 percent in 1989, to \$4,272 from \$3,806 in 1988, according to Council of Hospital Corporations statistics. The figures are based on what hospitals charge for the 50 most common diagnoses—which came to about 31 percent of what hospitals billed their patients—and indicate the largest one-year percentage jump in six years. The Council of Hospital Corporations, a trade association, has been compiling these figures since 1982. By comparison, hospital fees rose 7.98 percent from 1987 to 1988.

Council officials attributed the rise to escalating labor costs (registered nurses were recently awarded a three-year pay increase of 27 percent), a \$600,000 average annual cost per hospital to minimize the risk of employees contracting AIDS and hepatitis B, the rising cost of technology, and ballooning administrative costs due to increased government paperwork.

### Salaries for 5 Specialties

Orthopedic surgeons—both experienced and those just out of residency—saw their salaries reach new heights in 1989, according to a survey by the American Group Practice Association of 111 medical groups, more than one-third of its membership. According to the survey, experienced orthopedic surgeons earned, on average, \$151,386 last year, and physicians just out of residency earned an average of \$114,412. Those figures represent an average increase of 8.7 percent and 2.3 percent over 1988 salaries, respectively. Experienced family physicians' salaries climbed to \$82,543 (up 13.6 percent from 1988), and FPs just out of residency earned \$68,391 (up 13.0 percent). Experienced pediatricians earned \$75,801 (up 10.0 percent from 1988); those out of residency, \$68,028 (up 12.5 percent). Experienced obstetricians earned about the same (\$131,696) in 1989 as in 1988; obs just out of residency earned \$103,608 (up 15.7 percent from 1988). And experienced internists' salaries actually dropped 1.8 percent—to \$83,430—since 1988, while internists just out of residency earned virtually the same salary as in 1988—\$69,325.

The American Group Practice Association has compiled average salaries for these five specialties since 1986.

### Medical Products Recalled

The U.S. Food and Drug Administration (FDA) in August announced Class II recalls of medical devices made by three Twin Cities-area firms: Vasamedics Inc. of Little Canada and GV Medical Inc. and Schneider (USA) Inc., both of Plymouth. The FDA says it uses a Class II recall when products "may cause temporary or medically reversible" effects "or where the probability of serious adverse health consequences is remote."

The recalled Vasamedics product is a fiber optic blood perfusion probe that measures red blood cell movement through capillaries; the GV Medical prod-

uct is a laser system for reopening clogged arteries; and the Schneider recall involves open-ended guidewires for negotiating the vascular system and allowing fluid delivery to a specific site.

### 'U' May Owe Back Taxes

Officials from the Social Security Administration in August informed University of Minnesota officials that the university may owe as much as \$20 million because it failed to collect Social Security taxes from thousands of medical residents since 1985. University officials plan to appeal the decision, which requires the state to pay the back taxes by October 15. They claim that residents are students, not employees, and are therefore exempt from Social Security coverage. The university has never paid or collected Social Security for its residents but, under the statute of limitations, is liable only since 1985.

### Minority Med Students

While the ranks of women in medical school continue to grow, the percentage of African-American and Hispanic applicants and graduates has not increased significantly, according to an article in the August 15 *Journal of the American Medical Association*.

During the past decade, the number of women who are first-year medical students has increased from 4,748 in 1979-80 (27.9 percent of all first-year students) to 6,404 (38.2 percent of first-years), according to Harry S. Jonas, M.D., Division of Undergraduate Medical Education of the AMA, and colleagues. The 16,315 women in medical school in 1979-80 made up 25.4 percent of enrollees; the 23,501 women studying medicine in 1989-90 comprised 36.1 percent of enrollees, the authors wrote.

For five academic years starting with 1985-86, the number of first-year African-American students has

fluctuated, the authors found. In 1985-86, there were 1,030 African-American first-year students. In 1987-88, there were 1,254, and in 1989-90, there were 1,197.

### Student Debt, Med School Growth

The past two decades have seen the debts of medical students, especially certain minorities, rise while the growth of medical schools' revenues have slowed, according to a report in the August 15 *Journal of the American Medical Association*. The typical graduate left school with a medical degree and an average debt of \$42,374, up more than \$4,000 from only a year earlier, according to Paul Jolly, Ph.D., of the Section for Operational Studies of the Association of American Medical Colleges, Washington, D.C., and colleagues.

For underrepresented minorities, the debt burden is even higher, the authors wrote. For them, average indebtedness was nearly \$6,000 higher than the mean debt for all graduates in 1989.

Medical schools themselves have seen their growth slowed since the 1970s began, the report said. Before that time, the growth of schools, their faculties, and their students was explosive, but during the past 20 years, growth has slowed significantly:

- Service income has more than tripled, while federal support has dropped by nearly 50 percent.
- The number of graduate students and postdoctoral students from 1979 through 1989 grew by 2.8 percent and 5.1 percent, respectively.
- The growth in faculty, considered the best overall measure of medical school expansion, continued to climb at a 4.1 percent annual rate.

### Residency Slots

Available positions in U.S. residency programs exceeded the number of applicants for the fourth consecutive year in 1989, according to a report in the August 15 *Journal of the American Medical Association*.

Vacant, or unfilled, positions increased by 27 percent between 1988 and 1989, said JAMA's 90th Annual Report on Medical Education in the United States. A decline in the number of graduates of accredited medical schools may be one reason for the discrepancy between available and filled positions, said Beverley Davies Rowley, Ph.D., and colleagues at the AMA.

As of January 1, 1990, there were 6,591 programs accredited by the Accreditation Council for Graduate Medical Education (ACGME), an increase of 148 programs from 1988. Internal medicine leads the list in number of programs (440), followed by family practice (383), general surgery (286), and obstetrics and gynecology (282). An estimated 85,330 residents were on duty in the 1989-1990 academic year, 40 percent of which were training in internal medicine, family practice, or pediatrics. New York, California, and Pennsylvania trained the most residents in 1989.

## Innovations

### Promising AIDS Drug

A University of Minnesota researcher has developed a drug from the wild, poisonous pokeweed bush that shows promise in combating AIDS. The drug consists of the pokeweed derivative attached to a monoclonal antibody, which helps direct the drug to seek out and destroy HIV-infected T-lymphocytes. The drug successfully destroyed the infected cells without harming other cells in the laboratory, according to Fatih Uckun, M.D., an associate professor of therapeutic radiology at the university who developed the drug.

The drug must now be proven safe and effective in laboratory animals before it can be tried in humans, where it again must be proven safe and effective before it can be sold to the public. Many



promising AIDS drugs have failed to meet these further tests, but Uckun said that, in the test tube, the new drug is 1,000 times more potent than AZT in inhibiting HIV multiplication.

### Improved Breast Implant

St. Paul-based Bioplasty Inc. has introduced an improved breast implant that allows X-rays to pass through it and is more compatible with the body than earlier models. The new Misti Gold breast implant uses a gold-tinted gelatin material that, unlike silicone, allows X-rays to pass through it. Should the implant break—as can happen in an auto accident—the gelatin in the new implant is readily dissolved by the body and passed via the kidneys. Silicone, on the other hand, does not dissolve in water, and lumps resulting from implant rupture must be surgically removed.

The Misti Gold sells for \$500, compared with \$319 for Bioplasty's silicone implants.

### Insulin to Prevent Diabetes?

Boston researchers, spurred by success in diabetic laboratory rats and mice, plan to treat humans experimentally with insulin as a form of diabetes prevention, not treatment. Richard Jackson, M.D., of Boston's Joslin Diabetes Center, and colleagues plan to test whether small doses of insulin will prevent or slow the growth of antibodies that destroy insulin-producing beta cells. They hope to prevent Type 1 diabetes, which afflicts 10 percent of the nation's estimated 11 million diabetics. The researchers are screening for candidates in whom beta-cell-attacking antibodies are detected.

## Medical Research

### Ill Effects from Flu Shots

Influenza vaccine produces no more adverse symptoms than a placebo in elderly ambulatory patients, according to a report in

the September 5 *Journal of the American Medical Association*. In a study of 336 elderly veterans (mostly men), a randomized, double-blind, placebo-controlled test showed "no more systemic symptoms" in those who received actual flu shots than those who received placebos. "Influenza is a common and preventable cause of serious illness and death in the United States," according to Karen Margolis, M.D., of the Hennepin County Medical Center, Minneapolis, and colleagues. "Why, then, are fewer than one-third of high-risk individuals vaccinated in any given year in the United States?" the authors ask in their report.

The authors cited a previous survey of elderly respondents who said fear of the side effects of flu shots kept them from their physicians' offices and the shots. The volunteers in the study were 65 years of age or older. According to the report, 94 percent of the subjects believed their health was the same or better after they were vaccinated.

### Unnecessary Repeat Cesareans

About 60 percent of women who have given birth by cesarean section are able to give birth vaginally the next time around, according to a report released in August by the American College of Obstetricians and Gynecologists. Additionally, the survey of 2,213 obstetricians and gynecologists found that 58 percent of the women who had undergone a cesarean preferred vaginal delivery for their second and third children. The report revealed a trend toward vaginal birth after cesarean section, which used to be considered too dangerous.

### Head-injury Drug Precautions

The drug phenytoin, administered to more than 100,000 head injury patients annually to prevent


seizure, has been shown to be ineffective after a week of treatment, and it may be worse than no treatment at all as long-term therapy. The study of 404 patients, published in the August 22 *New England Journal of Medicine*, found that phenytoin (sold under the brand name Dilantin) is effective in suppressing further seizures in patients who already have epilepsy or have experienced a seizure. But when used to try to prevent an initial seizure, the drug is only effective for the first week of treatment, researchers reported.

After that, according to the study, patients taking phenytoin had no fewer seizures than patients taking a placebo. Even worse, those taking phenytoin had more side effects and recovered from their head injuries more slowly than the placebo group. Currently, patients are routinely given phenytoin for months at a time, even for as long as a year. The study was paid for by the National Institute of Neurological and Communicative Disorders and Stroke and by the drug's manufacturer, Warner-Lambert/Parke-Davis of Morris Plains, New Jersey.

### AZT-Cancer Link

National Cancer Institute researchers found that among people with AIDS who have been taking AZT for two years, 14 percent have developed non-Hodgkins lymphoma. From the study, published in the August 15 *Annals of Internal Medicine*, researchers estimated that nearly half of those taking AZT for three years would develop the cancer.

The researchers stressed, however, that their findings likely reflect the fact that, as patients using AZT live longer, they have a greater chance of developing the cancer, which often afflicts people with weakened immune systems. They said there is no evidence that AZT causes lymphoma. **MM**



Because of the ostracism described in this ad, we have used a professional model (who does *not* have AIDS) to represent young AIDS patients everywhere.

# PARIAH.

**H**er parents were forced to take her out of school. Her coach asked her to quit the team. And her friends aren't allowed to play with her anymore. She has AIDS. And the people in her community are scared.

Right now we can't cure her disease. But we can help her enjoy her childhood. That's why the AMA's AIDS Education Project teaches not only scientific and clinical facts and figures, but compassionate care for AIDS patients and their

families as well. It's why the AMA supports legislation protecting AIDS patients' rights. And why we filed an *amicus curiae* brief in the Supreme Court in support of those rights.

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# Health One Medical Education

Sept 13

"HIV" presented by John Weiser, M.D.,  
Sioux Valley Hospital, New Ulm, Minn., 12:15 p.m.

Sept 13-15

EMERGENCY MEDICAL SERVICES REGIONAL  
CONFERENCE - Radisson South, Minneapolis, Minn.

Sept 17

"HAZARDOUS MATERIALS" presented by Dan Foley,  
M.D. - Health One Owatonna Hospital, 6:00 p.m.

Oct 3

"ETHICAL DILEMMAS IN THE CARE OF THE  
TERMINALLY ILL" presented by Evelyn Van Allen,  
Network Coordinator for Minnesota Hospital  
Association and member of Metropolitan-Mount Sinai  
Ethics Committee; and Kenneth Dedeker, M.D., Vice  
President/Medical Director of Quality Assurance for Health  
One and Medical Director for Preferred One  
- Sioux Valley Hospital, New Ulm, Minn., 6 p.m. - 8 p.m.

Oct 6

THIRD ANNUAL HEALTH ONE PRACTICE  
OPPORTUNITY FAIR - a complimentary, full day  
symposium for residents and clinical fellows in multiple  
specialties - Phillips Eye Institute, Minneapolis, Minn.,  
8:00 a.m. - 1:45 p.m.

Oct 11

"HERPES VIRUS SEROLOGY" presented by  
Charles Horowitz, M.D.  
- Sioux Valley Hospital, New Ulm, Minn., 12:15 p.m.

Oct 12

CURRENT CLINICAL CARDIOLOGY CONFERENCE  
and NINTH ANNUAL JESSE E. EDWARDS, M.D.,  
LECTURE - United/Children's Conference Hall, 8:00 a.m.

Nov 2-3

THIRD ANNUAL NEW ULM FALL SEMINAR  
- Holiday Inn, New Ulm, Minn.

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# YOCON® YOHIMBINE HCl

**Description:** Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubiaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

**Action:** Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it, however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

**Indications:** Yocon® is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

**Contraindications:** Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

**Warning:** Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

**Adverse Reactions:** Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.<sup>1,2</sup> Also dizziness, headache, skin flushing reported when used orally.<sup>1,3</sup>

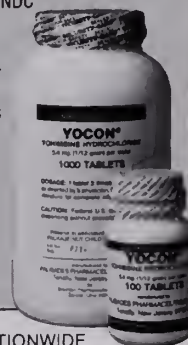
**Dosage and Administration:** Experimental dosage reported in treatment of erectile impotence.<sup>1,3,4</sup> 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.<sup>3</sup>

**How Supplied:** Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

## References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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## *A Calendar of Continuing Medical Education Courses*

*Provided through the MMA Medical Education Subcommittee on CME Resources.* For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; 612/378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

### OCTOBER 1990

**Oct. 6 3rd Annual Current Topics in Laboratory Medicine: Phlebotomy** Mayo Medical Laboratories; St. Luke's Hospital, Kansas City, MO. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 1-800/562-1787.

**Oct. 6 Current Trends in Ophthalmology** Metropolitan Mount Sinai Medical Center; Hotel Sofitel, Minneapolis, MN. CONTACT: Mary Strazz, 2215 Park Avenue South, Minneapolis, MN 55404; 612/336-5309.

**Oct. 7-8 Advanced Phacoemulsification Course** Phillips Eye Institute and Health One; Phillips Eye Institute, Minneapolis, MN. CONTACT: Mary Strazz, 2215 Park Avenue South, Minneapolis, MN 55404; 612/336-5309.

**Oct. 8 ACLS Certification** St. John's Regional Health Center; St. John's Regional Health Center, Red Wing, MN. CONTACT: Jane Gisslen, R.N., 1407 West 4th Street, Red Wing, MN 55066; 612/388-6721.

**Oct. 8-9 Building for the New Decade** Minnesota Perinatal Organization; Sunwood Inn, St. Cloud, MN. CONTACT: Barb Midtaune, MPO Coordinator, 3300 Oakdale Avenue North, #3E, Minneapolis, MN 55442; 612/520-1570.

**Oct. 10-12 Internal Medicine Review 1990: Infectious Diseases, Rheumatology, Gastroenterology** University of Minnesota Medical School; Mayo Memorial Auditorium, Minneapolis, MN. CONTACT: Pat Morandi, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

**Oct. 10-13 6th Annual Symposium: Echocardiology in Congenital Heart Disease** Mayo Clinic/Mayo Foundation; Mayo Clinic, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

**Oct. 12 Annual Advances in Geriatric Care** Hennepin County Medical Center; Hennepin County Medical Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55405; 612/347-2078.

**Oct. 12 Current Clinical Cardiology: 9th Annual Jesse E. Edwards Lectureship** United Hospital; Conference Center, Heart & Lung Building, United Hospital, St. Paul, MN. CONTACT: Eleanor Waldrup, 333 North Smith Avenue, St. Paul, MN 55102; 612/220-8558.

**Oct. 12 Brain, Behavior, and Biology: The Interface** St. Paul-Ramsey Medical Center; World Trade Conference Center, St. Paul, MN. CONTACT: CME, St. Paul-Ramsey Medical Center, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

**Oct. 12-13 Lasers in Gynecology: A Basic Seminar** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office 14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

**Oct 12-13 12th Annual Adolescent Medicine & Health Care Conference: Adolescents & AIDS** University of Minnesota Medical School; Holiday Inn Downtown, Minneapolis, MN. CONTACT: Pat Morandi, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

**Oct. 12-13 Current Concepts of Cardiology for the Primary Care Physician** Minneapolis Heart Institute Foundation and Immanuel-St. Joseph's Hospital; Holiday Inn Downtown, Mankato, MN. CONTACT: Cathy Elmstrom, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

**Oct. 12-13 Front Line Neurology: Primary Care Management of Patients with Neurological Problems** Abbott Northwestern Hospital; Marriott City Center, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office 14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

**Oct. 13 Interventional Radiology, Surgery, and Medicine: New Perspectives for the Primary Care Physician** Abbott Northwestern Hospital; Radisson Plaza Hotel, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office 14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

**Oct. 13 2nd Annual Health One Oncology Conference** Health One; Marriott City Center Hotel, Minneapolis, MN. CONTACT: Sue Hance, Health One CME, 2810 57th Avenue North, Minneapolis, MN 55430; 612/574-9895 or 800/347-3627.

**Oct. 15 ACLS Certification** St. John's Regional Health Center; St. John's Regional Health Center, Red Wing, MN. CONTACT: Jane Gisslen, R.N., 1407 West 4th Street, Red Wing, MN 55066; 612/388-6721.



Oct. 15-18 **Silver Anniversary Annual Orthopedic and Trauma Seminar** Hennepin County Medical Center; Marriott City Center Hotel, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55405; 612/347-2078.

Oct. 18-19 **13th Annual Trauma and Critical Care Conference** Hennepin County Medical Center; Hennepin County Medical Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55405; 612/347-2078.

Oct. 18-19 **Drawing the Line: Defining Basic Level of Health Care** University of Minnesota Medical School; Cowles Auditorium, Hubert Humphrey Center, West Bank University of Minnesota, Minneapolis, MN. CONTACT: Pat Morandi, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Oct. 19 **Annual Directors of Medical Education (DME) Conference** Hennepin County Medical Center; Hennepin County Medical Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55405; 612/347-2078.

Oct. 19-20 **Cutaneous Laser Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office 14202,

Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Oct. 20 **4th Annual Tutorial in Pediatric Cardiology for the Primary Practitioner** The Children's Heart Clinic, P.A.; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Harold Katkov, M.D., The Children's Heart Clinic, 2545 Chicago Avenue, Suite 106, Minneapolis, MN 55404; 612/871-4660.

Oct. 20 **Pulmonary Update-1990 for Primary Care Physicians** Mayo Clinic; Phillips Hall, Siebens Building, Mayo Clinic, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Oct. 20-21 **2nd Annual Obstetrical Review Course for Primary Care Physicians** Mayo Clinic; Plaza Ballroom, Kahler Plaza Hotel, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Oct. 22-24 **Clinical Reviews** Mayo Clinic/Mayo Foundation; Mayo Civic Auditorium, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Oct. 25 **Lasers in General Surgery** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Oct. 25 **Cells, Genes, and Genetic Engineering** Mayo Clinic/Mayo Foundation; Siebens Building, Mayo Clinic, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Oct. 25-26 **6th Ramsey Trauma Conference** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Oct. 25-26 **Annual Autumn Seminar Obstetrics and Gynecology** University of Minnesota Medical School; Holiday Inn Downtown, Minneapolis, MN. CONTACT: Pat Morandi, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Oct. 26-27 **Laser Laparoscopy Cholecystectomy** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Tim Schuh, CME Office 14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Oct. 27 **Frederick C. Goetz Symposium: Diabetes in the '90s** University of Minnesota Medical School; Hyatt Regency Hotel, Minneapolis, MN. CONTACT: Pat Morandi, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

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Oct. 27 **Using the MMPD/MMPI-2 with Adolescents: Clinical Applications & Current Research** Mayo Clinic/Mayo Foundation; Siebens Building, Mayo Clinic, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

#### NOVEMBER 1990

Nov. 1-2 **3rd Annual Medical Intensive Care Conference** Hennepin County Medical Center; Hennepin County Medical Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Nov. 2 **E. T. Bell Fall Pathology Symposium** University of Minnesota Medical School; Radisson University Hotel, Minneapolis, MN. CONTACT: Pat Morandi, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Nov. 2 **Non-Pharmacologic Treatment of Cardiac Arrhythmia** University of Minnesota Medical School; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Pat Morandi, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Nov. 2-3 **3rd Annual New Ulm Fall Seminar** Sioux Valley Hospital; Holiday Inn, New Ulm, MN. CONTACT: Sue Hance, Health One CME, 2810 57th Avenue North, Minneapolis, MN 55430; 612/574-7895 or 800/347-3627.

Nov. 3 **Fall Tumor Seminar** Minnesota Society of Clinical Pathologists; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Margo Melting-Nelson, Minnesota Medical Association, 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414; 612/378-1875.

Nov. 3-4 **Update in Cardiovascular Diseases** Mayo Clinic/Mayo Foundation; Mayo Clinic, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Nov. 3-4 **Clinical Autonomic Quantitation** Mayo Clinic/Mayo Foundation; Guggenheim Building, Mayo Clinic, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Nov. 3-4 **The Minnesota Society of Neurological Sciences** The Minnesota Society of Neurological Sciences; Sheraton Midway Hotel, St. Paul, MN. CONTACT: Lisa Deminsky, Executive Secretary, 4225 Golden Valley Road, Minneapolis, MN 55422; 612/588-0661, ext. 286.

Nov. 4 **Advances in Sleep Disorders Medicine** Mayo Clinic/Mayo Foundation; Leighton Auditorium, Siebens Building, Mayo Clinic, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Nov. 5-7 **Clinical Reviews** Mayo Clinic/Mayo Foundation; Mayo Civic Auditorium, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Nov. 7-9 **Laboratory Diagnosis of Bone and Mineral Disorders** Mayo Medical Laboratories; Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 800/562-1787.

Nov. 7-9 **Diabetes and Native Peoples: International Issues in Education, Treatment, and Prevention** Native American Research and Training Center, Indian Health Service, American Diabetes Association, International Diabetes Center; Holiday Inn, Minneapolis, MN. CONTACT: Dr. Robert Young, NARTC, 1642 East Helen Street, Tucson, AZ 85719; 602/621-5560.

Nov. 8 **Cells, Genes, and Genetic Engineering** Mayo Clinic/Mayo Foundation; Siebens Building, Mayo Clinic, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Nov. 8 **Topics in Pediatric Emergency Medicine** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Kathy Ingerson, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-5884.

Nov. 9 **Arthritis Update for Primary Care Physicians** Metropolitan-Mt. Sinai Medical Center and Health One; Orthopaedic Learning Center, Metropolitan-Mt. Sinai Medical Center, Minneapolis, MN. CONTACT: Sue Hance, Health One CME, 2810 57th Avenue North, Minneapolis, MN 55430; 612/574-7895 or 800/347-3627.

Nov. 9-10 **Pediatric Advanced Life Support (PALS) Course** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Kathy Ingerson, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-5884.

Nov. 15 **Merritt Putnam Symposium: Epilepsy—Diagnosis and Treatment Strategies** University of Minnesota Medical School; Sheraton Hotel, San Diego, CA. CONTACT: Pat Morandi, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Nov. 15-17 **Clinical Strategies in Primary Care Medicine** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Nov. 16 **Psychopharmacology and the Primary Care Physician** Hennepin County Medical Center; Hennepin County Medical Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.



## Physician Opportunities and Miscellaneous Listings

*Classified rates are 50¢ a word. Minimum monthly charge is \$10; with box number \$2 additional. Ads will not be accepted by phone.*

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- The publisher reserves the right to decline or withdraw advertisements. The publisher is not responsible for clerical or typographical errors and is not permitted to divulge the identity of advertisers who have replies sent to box numbers.
- Cancellation of ads must be made by the first of the month preceding month of issue.

**Twenty-nine Physician Multispecialty Clinic** located in desirable east-central Wisconsin location is seeking board-certified or board-qualified orthopedic surgeon to round out its services. Lab, X-ray, excellent hospital. Liberal guarantee and benefits. If interested, contact: D.F. Sweet, M.D., Fond du Lac Clinic, S.C., 80 Sheboygan Street, Fond du Lac, WI 54935. (R)

**Family Physician/Emergency Room:** Full-time salary working weekends, primarily emergency room. Flexibility available. Falls Medical Center, PA, 105 Shorewood Drive, International Falls, MN 56649. Please contact: A. Johnson, M.D., or A. Marc Gorden, M.D., at 218/283-9431 for more information. (R)

**Family Physician** wanted to join four physicians, one nurse practitioner, FP group practicing in two offices in Pine River and Pequot Lakes. Competitive salary. No ob. No HMOs. Rural area with outdoor recreational opportunities. Rotate hospital visits, emergency call; adequate free time. Call or write: C.R. Pelzl, M.D., Pine and Lakes Clinics, PO Box 88, Pine River, MN 56474; 218/587-4416. (R)

**Physician: GP/FP/EM** seeks locations to cover on weekends as locum tenens. Board-certified. FP. Lic. Minn. Write: Box 35132, Minneapolis, MN 55436. (R)

**Family Physician:** Dynamic 14-physician, two PA, three-office, single-specialty practice in northwest Minneapolis suburbs seeking additional associate, BC/BE; ob available. Competitive salary, full benefits, reasonable call and hospital rounds schedule. Contact: Dr. Jamie Peters, Northwest Family Physicians; 612/476-6776. (\*R)

**Wausau Medical Center** is seeking BC/BE individuals in the following specialties: cardiology, dermatology, family practice, infectious disease, obstetrics/gynecology, pediatrics, and rheumatology. Modern clinic facility located across

the street from modern, 300-bed hospital. Full partnership in three years. Easy access to lakes, woods, and mountains. Write (including CV) to: D.K. Aughenbaugh, M.D., Medical Director, Wausau Medical Center, 2727 Plaza Drive, Wausau, WI 55401. (R)

**Johnson & Falls Search Associates** represents new practice opportunities locally and nationally. Working exclusively in the area of physician search, we are committed to expanding your professional options while meeting our clients' needs. There are no fees to candidates. For a thorough, confidential search, send CV or call: Liz Johnson or Pat Falls, Johnson & Falls Search Associates, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0237. (R)

**Bemidji, Minnesota:** Excellent opportunities for well-trained physicians. We are seeking board-certified/board-eligible physicians in orthopedic surgery, family practice, ophthalmology, pediatrics, and otolaryngology to join a young 24-physician multispecialty group practice located in northern Minnesota. Competitive salary guarantee plus incentive first year and excellent benefits. An excellent opportunity for a physician to enjoy practice in the center of hunting, fishing, and clear air. Please respond with CV to: C.C. Lowery, Administrator, Bemidji Clinic-MeritCare, 1233 34th Street NW, Bemidji, MN 56601; 218/751-1280. (R)

**Outstanding Opportunity for a BC/BE Family Physician** to join a progressive medical community with eight physicians oriented to family practice. Details will be given by contacting: Dr. Tim Schmitt, Wadena Medical Center, 218/631-1360, or Jim Lawson, Administrator, Tri-County Hospital, Wadena, MN 56482; 218/631-3510. (R)

**Locum Tenens** physicians needed. Physicians and locations coordinating services. Write to: Margaret Carse, MED Professional Resource Search, PO Box 35215, Minneapolis, MN 55435. (10/89-R)

**St. Cloud**—Minnesota's fastest growing city—family practice physician, two pediatricians, two ob/gyns, BC/BE to join supportive primary care staff in a growing, successful, and innovative prepaid practice. New clinic facility. Full range of fringe benefits (competitive salary, liberal vacation, two weeks' education leave, retirement fund, etc.). Contact: Physician Services, Central Minnesota Group Health Plan, 1245 15th Street North, St. Cloud, MN 56303; 612/253-5220. An equal opportunity employer. (R)

**Family Practice:** Physicians seeking a BC/BE family practice physician for the Norway, Michigan, service area. The physician would have the option of joining one of the existing practices and/or setting up his/her own practice. Anderson Memorial Hospital is a part of Dickinson County Hospi-

tals and has a service-area population of over 45,000. Contact: Dr. Paul Hayes, Anderson Memorial Hospital, Main Street, Norway, MI 49870; 906/563-9243, or office 906/563-9255. 2-11/90

**Radiologist:** A three-physician radiology group is seeking a fourth radiologist with experience and interest in interventional radiology. Dickinson County Hospitals is a progressive, 126-bed, two-hospital system located in Iron Mountain, Michigan's Upper Peninsula. We have a service-area population of over 45,000. Contact and/or send résumé to: Drs. Specht/Shampo/Manzano, Radiology Department, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4565.

2-11/90

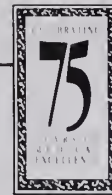
**Mankato:** FP partner to join four board-certified family physicians, ages 31-41, in fast-growing, full-range practice, includes ob. Population 40,000+. 70 miles to Twin Cities. Four colleges nearby. 90+ physicians on hospital staff. Academic appointment available. Call: Tony Giefer, M.D.; 507/387-8231. (1/90-R)

**Family Physicians:** Well-established south suburban Minneapolis family practice group seeks associates part/full time to staff day clinic. Excellent call schedule, salary, and fringe benefits. Also seeking locum tenens to staff PT/FT Urgent Care Centers and/or day clinic. Contact: Administration, Family Physicians, P.A., 612/435-4125, or send inquiries to Suite 100, 14050 Nicoller Avenue South, Burnsville, MN 55337. (\*9/89-R)

**Family Practice—Hospital-Sponsored Clinic Opportunity:** Dynamic growth-oriented hospital in beautiful north-central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus, and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435; 612/835-5123. (R)

**Urgent Care/Primary Care** physicians for over 90 group positions in metropolitan Phoenix/Tucson, Arizona. Excellent compensation/partnership opportunities. Other quality positions nationwide. Send CV or call: Mitch Young (MM), PO Box 1804, Scottsdale, AZ 85252; 602/990-8080. (\*1/90-R)

**Orthopedic Surgeon:** A progressive, 126-bed, two-hospital system is seeking an orthopedic surgeon to join an established practice in the Iron Mountain area of Michigan's Upper Peninsula. Must be BC/BE. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Dr. Roberts



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will guarantee \$250,000 plus malpractice insurance, office space, CME, vacation, and relocation expenses. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4500. \*2-10/90

**BC/BE Family Practice and Internal Medicine Physician:** Excellent opportunity to join well-established, progressive 20-physician multispecialty group located in an economically sound community of 20,000 (drawing area of 30,000), 65 miles south of the Twin Cities. Full membership after one year. Competitive salary and fringe benefits package. Contact: Ed Durst, M.D., or Terry Tone, Administrator, 134 Southview, Owatonna, MN 55060; 507/451-1120. (2/90-R)

**Dermatologist, Psychiatrist, Allergist, Internal Medicine, Family Practice:** A progressive, 126-bed, two-hospital system is seeking the above specialties to establish practices in the Iron Mountain area of Michigan's Upper Peninsula. Must be BC/BE. Located 100 miles north of Green Bay, Wisconsin. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Diagnostic capabilities include a CT scanner, CO<sub>2</sub> laser, and a fully staffed special diagnostic department. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4500. \*2-10/90



**Positions Available in Family Practice, Internal Medicine, Obstetrics/Gynecology, General Surgery, and Pediatrics:**

28-physician multispecialty clinic seeking additional physicians in FP, IM, Ob/Gyn, GS, and Peds departments. Interstate Medical Center offers a competitive salary, comprehensive benefits, and the support and team approach of a multispecialty environment. Red Wing is a midsized community along the bluffs of the Mississippi River only 40 miles from the Minneapolis/St. Paul area. Area highlights include an excellent school system, a growing cultural environment, water recreation, skiing, and an active business climate. Red Wing has all the benefits of a metro area in a serene setting. For additional information, please call or send CV to: Don Bruns, M.D., Highway 61 West, Red Wing, MN 55066; 612/388-3503. \*3-11/90

**Forest Lake Doctor's Clinic** is seeking a BC/BE family physician, pediatrician, ob/gyn, and internist to join 10-physician multispecialty group. Located 25 miles north of Minneapolis-St. Paul in progressive community with excellent schools, many beautiful lakes, recreational activities, golf, fishing, boating, skiing. Local hospital directly across street. Contact: Dr. Harvey J. Frank or Dr. Doug Sill, 121 SE 11th Avenue, Forest Lake, MN 55025; 612/464-7100. (4/90-R)

**Internist** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D.,

River Falls, WI 54022; 715/425-6701 or 612/436-8809. (\*3/90-R)

**Family Practitioner** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809. (\*3/90-R)

**Family Practice, Internal Medicine, Pediatrics, Urology, Obstetrics and Gynecology, Dermatology, and Orthopedics** practice opportunities available at the Faribault Clinic. The Faribault Clinic is a multispecialty group practice of 14 physicians. Faribault is located 50 miles south of Minneapolis on I-35. For more information contact: Ray W. Wood, M.D., or Ken Smith, Administrator, 924 NE 1st Street, Faribault, MN 55021; 507/334-3921. (4/90-R)

**Family Physician:** Tired of call? Want predictable hours? Full-time physician needed to work three days per week in our outpatient family practice clinics. Salary plus bonus and benefits including malpractice insurance. Contact: Todd Patton, M.D., or William Wenmark, CEO, c/o NOW Care Medical Centers, 13031 Ridgedale Drive, Minneapolis, MN 55343; 612/593-9010. (5/90-R)

**Sanibel Island for Rent:** 2 BR condo, by day or week, on beautiful Sanibel Island, Florida. Home of famous wildlife refuge. Swim, shell, or just relax. Extensive bike paths, two

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7-12/90

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**Mankato Clinic, Ltd.** is seeking BC/BE physicians in the following specialties: dermatology, invasive cardiology, ob/gyn, oncology/hematology, pulmonary medicine, vascular surgery, family practice, pediatrics, and general internal medicine. The Mankato Clinic is a 43-doctor multi-specialty group practice in south-central Minnesota with a trade area population of +200,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information call: Roger Greenwald, Administrator, or Dr. B.C. McGregor, 507/625-1811, or write: 501 Holly Lane, Mankato, MN 56001. (6/90-R)

**Family Physician for Southwest Suburban Minneapolis:** BC/BE to join rapidly growing practice in Chaska, a rapidly expanding suburban Minneapolis community. Competitive salary, full benefits. Hospitals in Shakopee and Waconia. Provider for many health plans. Be prepared to be busy with the full spectrum of family practice. Contact: David Willey, M.D., or Betty Kuelbs, R.N., Valley Family Prac-

tice, 822 Yellow Brick Road, Chaska, MN 55318; 612/448/3303. 6-12/90

**Michigan—Ann Arbor Suburb:** Primary care specialists needed. Group-managed practice. Call one in three. First-year income guarantee, benefits, and paid malpractice. Call: Wanda Parker, Senior Associate, E.G. Todd Associates, 535 Fifth Avenue, Suite 1100, New York, NY 10017. Toll free: 800/221-4762. Collect: 212/599-6200. \*6-12/90

**Family Physician or Internist** needed for rural community in southern Minnesota. Two hours from Minneapolis and one and one-half hours from Rochester. Contact: Susan Pemberton, Administrator, Wells Hospital, 400 4th Avenue SW, Wells, MN 56097; 507/553-3111. 3-10/90

**Pediatrician, Ob/Gyn, Family Practitioner, General Surgeon:** Growing 17-physician, multispecialty clinic in beautiful northwestern Wisconsin seeking BC/BE specialists. Attractive partnership opportunity. Come grow with us! Contact: Donald W. Clemens, Administrator, Indianhead Medical Group, Ltd., 1020 Lakeshore Drive, Rice Lake, WI 54868; 715/234-9031. 3-10/90

**Internist** with/without subspecialty interests, BC/BE to join 19-physician multispecialty group with five internists. Southeast Missouri rural city of 17,500. No PPO, HMO. Low taxes. Contact Administrator, Ferguson Medical

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 314/471-0330. 3-10/90

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**BC/BE Family Physician:** Full time or part time. Progressive community clinic, competitive salary and benefits, ob optional. Contact: Gordon Lester, M.D., or Tom Yardic, Executive Director, West Side Health Center, (La Clinica), 153 Concord Street, St. Paul, MN 55107; 612/222-1816. 4-11/90

**LifeSpan Health Care Services Seeks Family Physicians** for Cambridge, MN, Crosby, MN, Eden Prairie, MN, Grantsburg, WI, Hopkins, MN, Lakefield, MN, Minneapolis, MN, Monticello, MN, Mound, MN, Springfield, MN, St. James, MN, Wayzata, MN, and Woodville, WI. For further information, contact: LifeSpan Health Care Services, 800 East 28th Street, Minneapolis, MN 55407; 612/863-4193. Ask for Jerry Hess. \*3-10/90

**Wisconsin:** Third BC/BE obstetrician/gynecologist needed to join stable, progressive, primary-care-based HMO/group practice in university town of 60,000 near Minneapolis-St. Paul. Excellent quality of life and outstanding recreational area. Competitive salary and fringe benefits. Contact: Stuart R. Lancer, M.D., Medical Director, Group Health Cooperative, PO Box 3217, Eau Claire, WI 54702-3217; 715/836-8552. \*3-2/91

**Phoenix, Arizona:** BC/BE family physician needed for established medical group. Practice located in a desirable high-growth area. Excellent compensation and benefits package. Send CV to: Minnesota Medicine (843), 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414. 12-7/91

**Family Practice / North Shore Lake Superior:** BC/BE family physician to join busy practice in primary care clinic of four family physicians with consulting internist, ophthalmologist, general surgeon, and orthopedic surgeon. Advantages of living in a small town while being only 22 miles from Duluth metro area. Contact: Lee Cohen or Steve Bjorum, Administrator, Community Health Center, Inc., 4th Street at 11th Avenue, Two Harbors, MN 55616; 218/834-7207. EEO/AA. (8/90-R)

**Internist** (with or without subspecialty) needed to join three-person internal medicine practice. Send CV to: J.E. McCrery, M.D., 1527 Broadway, Alexandria, MN 56308. 5-12/90

**BC/BE Family Physician** to join a progressive multispecialty group of 12 physicians located in a community of 11,000 (drawing area of 70,000). Full ownership status after one year. Competitive salary and excellent fringe benefits package. Contact: Steve Duncan, Administrator, Fairmont Medical Clinic, PO Box 800, Fairmont, MN 56031-0800; 507/238-4263. 6-1/91

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Pflaum, M.D., 303 South Washington, Lake City, MN; 612/345-3318. (8/90-R)

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**Solo Harvard- and Mayo-trained Internist** in Clearwater, Florida, planning gradual retirement. Need board internist phasing in and purchasing practice over two to five years. Own expandable office across from large voluntary hospital. Reply: Minnesota Medicine (844), 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414. 3-11/90

**Family Practice / Urology / Orthopedic Surgery:** Dakota Clinic, Ltd., Wahpeton, North Dakota, seeking BC/BE physicians. The Wahpeton Clinic (a new facility as of April 1990) is currently staffed by 14 physicians serving a six-county area in three states. Beautiful Minnesota lakes district within 30 miles. Excellent fringe benefits package. Please contact: Corrine Romerein, Division Manager, 275 South 11th Street, Wahpeton, ND 58075; 701/642-2000. \*6-2/91

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Fred Haack, Mille Lacs Health System, 200 North Elm Street, Onamia, MN 56359. 6-2/91

**MDsearch** assists medical groups and hospitals in their recruiting efforts. For confidential information on opportunities in the Upper Midwest, send CV and/or call collect: Mary Jo Cordes, MDsearch, PO Box 21507, St. Paul, MN 55121; 612/454-7291. 12-8/91

**Cannon Falls:** Lease or buy established medical clinic building; partially furnished, including X-ray. Adequate for two physicians. Excellent hospital in community. Call: Dr. Klefsstad, 507/263-3545. Write: Box 98, Cannon Falls, MN 55009. (9/90-R)

**The University of Minnesota School of Dentistry** invites applications for part-time and full-time non-regular faculty for consultative diagnostic and treatment planning services in specialty clinics. M.D. required, with training and experience in otolaryngology, cleft palate patient care, and/or physical medicine and rehabilitation with experience in chronic pain. The University of Minnesota is an equal opportunity educator and employer and specifically invites and encourages applications from women and minorities. Send resume (indicating specialty or area[s] of clinical expertise) by 6/30/91 to: Dean Richard P. Elzay, University of Minnesota School of Dentistry, 515 Delaware Street SE, Minneapolis, MN 55455. \*1-10/90

**Sports and Industrial Rehab Center** is seeking a physician who is interested in a multi-discipline approach to management of neuro-musculo-skeletal disorders. Excellent ground-floor opportunity. Interested parties please submit CV to: Sports and Industrial Rehab Center, 7495 West 147th Street, Apple Valley, MN 55124. 1-10/90

**Family Physician and General Surgeon** BC/BE to join progressive 20-physician multispecialty group practice. Advantages of rural setting with metropolitan practice style, 25 miles from Minneapolis. Group has excellent reputation and large geographical referral area. Our newly expanded facility is adjacent to a 110-bed hospital. Comprehensive benefits package with excellent remuneration. For more information, contact: Bruce Hoggarth, M.D., or Bob Wilcox, Administrator, Lakeview Clinic, Ltd., 424 State Highway 5 West, Waconia, MN 55387; 612/442-4461 or 612/446-1295. 1-10/90

**Psychiatrist Medical Director:** We are United Behavioral Systems, Inc., a subsidiary of United HealthCare Corporation and a national provider of mental health and chemical dependency services contracting with HMOs, PPOs, and self-insured corporations. Currently, we have an exceptional opportunity for a seasoned professional to oversee our corporate physician activity. Additional emphasis will involve appeal-level reviews and consultation for our national utilization review case management program. The successful candidate will possess significant psychiatric

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- Orthopedics
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**Family Practice—Northwest Iowa:** An exceptional teaching/practice opportunity in Sioux City, Iowa, with a well-established family practice clinic affiliated with the University of Iowa Residency Program. This clinic serves over 30,000 patients annually and is located within one mile of two regional medical centers. Excellent compensation potential in excess of \$100K for a qualified BC/FP physician. Many recreation and cultural opportunities plus a lifestyle unequalled in larger urban areas are available in our community. Call: Bruce Blankley at 800/666-4041 to find out more, or send CV to: Williams & Company, Department 9, PO Box 268, Sioux City, IA 51102. \*1-10/90

**Family Practice:** BC/BE family practitioner to join 21-person family practice department that is part of a 45-person multispecialty group located in the northern suburbs of Minneapolis. Practice opportunities available in

rural and suburban locations. Highly competitive first-year guaranteed salary, production-based compensation, exceptional benefits package. Respond with CV to: Richard Bertie, M.D., 9055 Springbrook Drive, Coon Rapids, MN 55433; 612/780-9155. \*1-10/90

**Sioux City, Iowa:** Join a family practice group of four in new office facility fully equipped with lab, X-ray, and qualified staff. Enjoy the opportunity to work with quality physicians, do ob, share call, and have time off for family. First-year guarantee with no buy in. For more information, contact: Paul Fee, M.D., or Pam Miller, Executive Director, Mercy Medical Services, 801 5th Street, Sioux City, IA 51101; or call 712/279-2237. 1-10/90

**Opportunity to Build** an existing practice base of retiring physician in South Sioux City, Nebraska. Potential for group of three physicians. Call sharing, business/management systems taken care of. First-year guarantee with no buy in. For more information, contact Pam Miller, Executive Director, Mercy Medical Services, 801 5th Street, Sioux City, IA 51101; or call 712/279-2237. 1-10/90

**Rheumatologists:** 115-physician multispecialty clinic in the Fox River Valley of northeastern Wisconsin desires a BC/BE rheumatologist to join a department of three BC rheumatologists. Two-year guarantee, plus comprehensive benefits package offered. This area, which encompasses Appleton, Neenah, and Oshkosh with a combined popula-



## WORTHINGTON MEDICAL CENTER PROFESSIONAL ASSOCIATION

The Worthington Medical Center is a 17 member multispecialty group practicing in Worthington, Minnesota. The clinic provides primary and secondary care for a large portion of Southwestern Minnesota and Northwestern Iowa. Practice opportunities exist for board certified/eligible physicians in the Worthington office.

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Internal Medicine  
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Orthopedic Surgery  
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For more information contact:  
John Sieve, Administrator  
Worthington Medical Center, P.A.  
508 Tenth Street, P.O. Box 86  
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Phone: 507-372-2921

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### Family Practice / Internal Medicine Opportunities

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Solo practice opportunity with coverage by established internist.  
Area needs 2+ additional internists.  
Financial and management aid to start practice.  
Office space available in M.O.B. next to the hospital.

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Contact: Leo Bargielski, hospital President at (414) 261-4210, or Dr. Ed Hoy, Chief of Staff (414) 261-8225. We are located at 125 Hospital Drive, Watertown, WI 53094.



tion of +300,000, offers a superb recreational, cultural, and family environment in which to practice. For information please call or write: Roger Rathert, M.D., La Salle Clinic, 411 Lincoln Street, Neenah, WI 54956; 414/727-2702.

2-11/90

**Two Ob/Gyn Physician Openings** in a clean, conservative, progressive Midwest community of 50,000 population. Starting salary \$200,000 plus a \$50,000 signing bonus. Also, there are internal medicine and dermatology openings in this community. Call: Professional Careers, Inc., 612/796-6220.

2-11/90

**Busy St. Paul Family Practice Clinic** looking for additional associate by January 1, 1991. Inquire: 612/293-9199, Dr. Tim Rumsey.

\*2-11/90

**Minneapolis, Minnesota:** Suburban practice, just 10 minutes from downtown. Multispecialty group with 25 family practice physicians has an excellent opportunity available. Call is one in 25 weekdays and one in four weekends (one day), full day off during week, excellent compensation, and unparalleled benefits program. Call: Robert Hovda, M.D., 612/788-9601, or write: Columbia Park Medical Group, #480, 6200 Shingle Creek Parkway, Brooklyn Center, MN 55430.

3-12/90

**Internal Medicine:** Minneapolis, Minnesota suburban multispecialty group with seven internists is seeking internist with or without subspecialty interest. One-hospital practice, excellent salary and benefits program. Contact: Sim Gesundheit, M.D., 612/571-0457 or send CV to: Columbia Park Medical Group, 6200 Shingle Creek Parkway, Suite 480, Brooklyn Center, MN 55430.

3-12/90

**Practice For Sale in Beautiful Southwest Montana:** Fishing, camping, and boating at your doorstep. Family practice with terminations of pregnancy. Price: \$50,000, negotiable. Reply with CV to: Minnesota Medicine (845), 2221 University Avenue SE, Minneapolis, MN 55414.

3-12/90

**Eugene, Oregon—Family Practice:** 36-physician multispecialty group is seeking BC/BE family physician. Ob optional. Excellent schools. Abundant cultural and recreational opportunities. Near Cascade Mountains and coast. Home of University of Oregon. Please send CV to: Rob Daugherty, M.D., Oregon Medical Group, 2484 River Road, Eugene, OR 97404; or phone: 503/688-9140.

3-12/90

**Internal Medicine and Family Practice Physicians—BC/BE:** Exceptional opportunity to join our well-established, very busy multispecialty clinic located in Milwaukee. Attractive and well-equipped building including in-house laboratory, X-ray department, business department, etc. Excellent progressive hospitals, medical school, regional medical center. The greater Milwaukee area offers superb family environment, diverse cultural and recreational options. This is a unique, outstanding professional and personal opportunity! Please send CV or contact: Jonathan Slomow-

itz, M.D., Mitchell Medical Center, 1672 South Ninth Street, Milwaukee, WI 53204; 414/383-4700. 3-12/90

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The Second Annual

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for Internists, Family Practitioners and Nurses

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**Brain Tumors: Primary & Secondary**

**GYN Malignancies**

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**Controversies in Analgesic Care for the Terminally Ill**

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for Primary Care Physicians**

**Keynote Address: Bone Marrow Transplantation**

## **Our speakers/panelists**

---

Joseph Cardamone, M.D.

Lanning Houston, M.D.

Seymour Levitt, M.D.

Therese O'Fallon, RN, CNRN

Max Zarling, M.D.

John Savage, M.D.

Joseph Cardamone, M.D.

Ronald Cranford, M.D.

Burton Schwartz, M.D.

Elizabeth C. Reed, M.D., Assistant Professor at the  
University of Nebraska Medical Center

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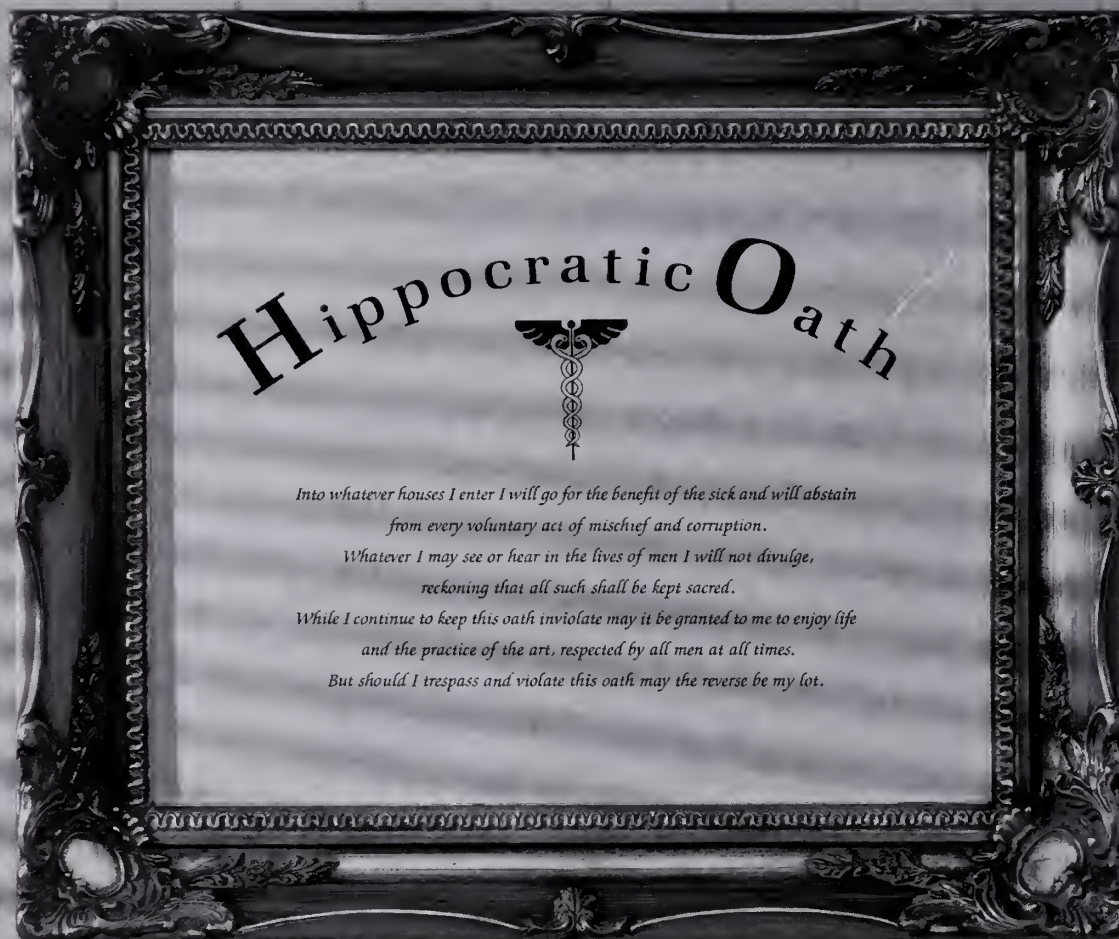
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MEDICINE  
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# "Eventually, every person with an eating disorder will seek help for physical symptoms."



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If you suspect that you have a patient with an eating disorder, or want to discuss treatment options, call me directly at the Institute, 932-6200 or call Methodist Hospital's toll free Physician Connection. In Minnesota call 1-800-932-2212. In adjacent states call 1-800-932-4212.

Eating Disorders are insidious. But eventually there will be physical manifestations of the disorder, be it anorexia, bulimia or a combination of both. It has been our experience at The Eating Disorders Institute, that most people will seek help for symptoms even while attempting to hide the eating disorder from their doctor. Symptoms can include unaccountable abdominal pain, headaches, dizziness, heartburn, chest pain, sore throat, unexplained edema or amenorrhea.

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# Minnesota Medicine

A JOURNAL OF CLINICAL AND HEALTH AFFAIRS



NOVEMBER 1990 VOLUME 73 NUMBER 11

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## COVER

**Medicine and Art** Medicine has two sides: scientific and artistic, and every physician learns to balance these two diverse approaches. At times the physician is more the scientist; at other times, the artist. This month's special Perspectives section celebrates the artist in each of us and this peculiar union of art and science that we call medicine.

Cover illustration by Robert O. Fisch, M.D., of Minneapolis, who also contributed an essay on page 13.

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# ***"I didn't acquire emphysema, I inherited it"***

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1. Brantly ML, Paul LD, Miller BH, et al: Clinical features and history of the destructive lung disease associated with alpha-1-antitrypsin deficiency of adults with pulmonary symptoms. *Am Rev Respir Dis* 1988;138:327-336.

2. Wewers MD, Casolaro MA, Sellers SE, et al: Replacement therapy for alpha<sub>1</sub>-antitrypsin deficiency associated with emphysema. *N Engl J Med* 1987;316:1055-1062.

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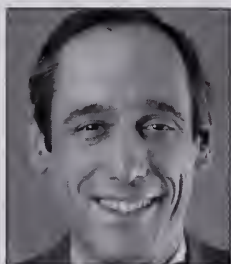
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# Artistic and Scientific Contributions

Richard L. Reece, M.D.

I am resigning my position as editor-in-chief of *Minnesota Medicine*, effective January 1, 1990, to enter pathology practice in another state. In my final Editor's Notebook next month, I will bid you farewell.

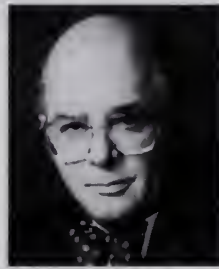
In the meantime, as my 16-year editorship comes to a close, the Minnesota Medical Association Board of Trustees will be searching for a new editor. The board is taking applications for this part-time position. The responsibilities include chairing the *Minnesota Medicine* Advisory Committee, which meets with MMA staff to determine the journal's content and focus; writing the monthly Editor's Notebook column; conducting interviews for publication in the journal; reviewing scientific manuscripts and other material; and providing medical expertise and editorial guidance.

If you are interested in this position, please contact MMA Chief Executive Officer Paul S. Sanders, M.D., by December 1 at the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414. Explain in your letter why you are interested in the editorship and describe your qualifications.

I urge the rest of you to be contributors to *Minnesota Medicine*, as well, by submitting at any time your scientific manuscripts—original research articles, case reports, review articles, health affairs analyses—and your essays, letters, poems, and opinion pieces. Help determine the focus of our state medical journal and help shape medical practice in Minnesota. *Minnesota Medicine* can be only as good as your submissions.

## Medicine & Art

This month, one of our frequent contributors, Robert O. Fisch, M.D., has lined up five Perspectives pieces that



"The art of medicine has become hidden in the shadows of today's complex health care system."

examine some of the intersections between art and medicine. The essays, all quite different in style and approach, explore medicine in art, art in medicine, and the art of medicine.

Not atypically, as we started planning this special section on medicine and art, I began to notice other articles on the same topic. One in particular, by Malcolm Watts, M.D. (*American Medical News*, March 16, 1990), seemed most relevant to our issue.

Dr. Watts says: "For many millennia the practice of medicine was mostly an art. What knowledge there was derived from empirical experience sometimes laced with a healthy dose of professional imagination. There was—in fact, there still is and always will be—some magic in the art. But the art of medicine flourished in simpler times. More recently, it has fallen into disregard, if not disrepute."

Watts, who believes the art of medicine may profoundly influence patient outcome, argues that the art of medicine has become hidden in the shadows of today's complex health care system. It can be rediscovered and flourish again if we study—as a whole new social science—the human interactions between and among health professionals and patients and examine these relationships in the broader context of the health care system.

Dr. Watts' thoughts reveal the underlying theme connecting our five essays on medicine and art. Whether describing medicine's ties to literature, music, painting, or the art of daily living, each of these essays is ultimately about communicating and interacting with others to increase our knowledge and understanding of our world—to put our experience into a broader context.

Dr. Fisch captures the essence of this message when he writes: "Art is unrestricted communication, the need to express what we the artists want or need to say. . . . Art and medicine are two consequences of the same desire to sustain life." MM





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### Professional Liability Clarification

Your recent interview with Dr. George B. Tangen (*Minnesota Medicine*, September 1990) regarding the Midwest Medical Insurance Company (MMIC) was most illuminating, because it points out what well-intentioned physicians can do in an effort to combat the medical malpractice insurance problem. In the interview, Dr. Tangen refers to the Study Group on Professional Liability Rates chaired by Dr. Joseph A. Cella, Jr., and established by the Minnesota Medical Association to study the appropriateness of professional liability rates. Dr. Tangen stated in this interview that the group found that the severity of claims is not necessarily decreasing but actually may be increasing. In fact, the study group concluded that "the severity of liability payments may now be stabilizing, although evidence over a longer period of time will be needed to confirm this change."

Dr. Tangen failed to mention in his synopsis of the study group's conclusions that "insurers should be encouraged to provide discounts for physicians with a favorable experience rating over time." The study group fully understands the nature of the insurance industry, whereby, to some degree, the "good" subsidize the "bad." Nonetheless, it was the feeling of the group that if a physician had a favorable experience over a reasonable number of years, this should be taken into account in the form of individual reduction of the overall annual premiums.

I personally wish Dr. Tangen well in his first year as chairman of



MMIC, and wish the company continued success.

David W. Nelson, M.D.  
Plastic Surgery of Minneapolis, Ltd.  
Minneapolis, Minnesota  
Member, MMA Study Group on  
Professional Liability Rates

### Olmsted-Mayo Collaboration

Thank you very much for putting a portion of my letter regarding the Olmsted Medical Group's beginnings in the September 1990 *Minnesota Medicine*.

I noticed that a section of my letter describing areas of research in which the Olmsted Medical and Surgical Group collaborated with the Mayo Clinic in 1967-68 was not included. We were able to collaborate with the Mayo Clinic on amalgamating our diagnostic records with Mayo's to produce a 97.5 percent retrievable diagnostic coverage of the Olmsted County population. This gives us much better statistics of the incidence of diseases in the county (and possibly the country) over the past few decades, and scores of articles have been published in numerous

medical journals on the instances of various diseases seen in Olmsted County since 1967. Any mention of this service needs to include the Olmsted Medical Group and not just the Mayo Clinic. I am pleased to have been instrumental in bringing the two medical groups together.

John E. Verby, M.D.  
Professor

Department of Family Practice and  
Community Health  
and Director  
Rural Physician Associate Program  
Minneapolis, Minnesota

### Chronic Pain Treatment

I was pleased to read the recent article "Treatment of Acute Herpetic Neuralgia: A Case Report and Review of the Literature" (*Minnesota Medicine*, April 1990). This article reinforces the contention that early sympathectomy can alleviate the pain associated with acute herpetic eruptions and can prevent post-herpetic neuralgia. In our practice, we have also found that sympathectomy is effective in treating pain associated with acute herpetic neuralgia that persists for up to six weeks.

Patients are often referred to our clinic with chronic pain related to post-herpetic neuralgia, reflex sympathetic dystrophy, phantom limb, terminal cancer, and other conditions. When intervention to treat pain due to these etiologies is delayed by more than six to eight weeks, injections of local anesthetic and high-dose steroids are placed at the site of nerve root irritation. If only temporary relief is obtained after two to three treatments, use of an epidural catheter to infuse spinal narcotics is then prescribed. The duration of catheter treatment to achieve lasting pain relief usually increases progressively with the



amount of time that elapses between the onset of severe pain and onset of spinal intervention.

In a recent study of 51 patients with intractable pain of malignant or non-malignant origin, 79 percent experienced good to excellent pain relief with catheter administration of spinal narcotics in low dosages. Most patients were able to return to their former residences and experienced an improved quality of life without any need for institutionalization. This experience contrasts sharply with treatment of terminally ill cancer patients with high dosages of systemic morphine, which we, unfortunately, occasionally read about in the public press.

We have also found that when treatment for chronic pain is delayed by more than six to nine months, pain relief by any medical means may not be possible. (Patients whose pain is initially associated with acute herpetic eruptions, for example, will develop post-herpetic neuralgia.) In these cases, we suspect that the patient's underlying condition contributes to irreversible damage of the affected nerves and/or vasculature, and the resulting pain cannot be reversed.

More clinical findings about pain treatment need to be presented in the literature, such as the case study and literature review reported by these authors. If so, we believe that many more patients can achieve more effective pain relief with less drastic measures.

*Samuel K. Yue, M.D.*

*Medical Director  
Institute for Chronic Pain  
Edina, Minnesota*

### Smoking Cessation Intervention

Smoking is the single, most important cause of premature mortality. More than 390,000 people in the United States die annually from tobacco-related diseases. Since more than 70 percent of smokers see their physicians each year, physicians are in an excellent position to intervene in this chronic problem of nicotine addiction.

Some smokers stop after receiving simple advice from their physicians. Greater success is possible with a systematic approach to smoking cessation. Brief interventions by physicians can result in 10 percent to 20 percent of smokers stopping in one year. If half of all physicians help 10 percent of their smoking patients to stop, there will be 2 million new ex-smokers each year.

The American Cancer Society, the National Cancer Institute, and the National Institutes of Health have developed a brief, effective smoking cessation intervention for physicians to use at each office visit of patients who use tobacco products.

The Minnesota Division of the American Cancer Society plans to present a one-day workshop Saturday, December 1, 1990, to train clinicians to teach their colleagues methods to help their patients stop smoking. The workshop is conducted by National Cancer Institute faculty and is accredited for 6.5 credit hours in Category I of the Physicians Recognition Award of the American Medical Association.

There is no charge for the workshop, but due to space limitations, we need trainers who are able to make a commitment to give smoking cessation presentations to their colleagues on an ongoing basis. Attendees will be given a script, a set of slides, and a videotape to use in future programs, which can be offered in a 45-minute or three-hour format.

The workshop will be held at the American Cancer Society office, 3316 West 66th Street, Minneapolis. For further information, please contact Teresa Quinn, M.D., at 612/222-1816, or Caryl Range at the American Cancer Society, 612/925-6320.

*Teresa Quinn, M.D.*

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# A Look at Today's Hospital Board

Minnesota Medicine interviews Roger Foussard

*As someone who didn't grow up in either Minneapolis or St. Paul, I've always been amused by how natives of each city get lost when they cross the river. From listening to them, you might guess they were wandering lost in the forest. This sense of being lost also extends to the two cities' understanding of each other's health systems.*

*To help clear the forest, I decided to interview Roger Foussard, chairman of the board of HealthEast. Mr. Foussard is a business stalwart in St. Paul. As a civic leader, as the former owner of a company that managed hospital laundries, and as a long-time denizen of hospital boardrooms, he understands relationships between hospitals, physicians, and the community in St. Paul.*

*More specifically, as chairman of the board of HealthEast, Mr. Foussard has played a central role in salvaging HealthEast from impending financial disaster. In 1989, HealthEast was in technical default on its bonds. The HealthEast system had lost \$24 million in 1988 and \$35 million in 1989. There were dark rumors that HealthEast might be the first multi-hospital system in a major city to collapse.*

*But now, through a series of belt-tightening moves, including closing facilities and laying off personnel, HealthEast has turned the financial corner and is showing a profit. This interview tells the tale of HealthEast and how Mr. Foussard feels about what has transpired and what lies ahead.*

*Roger Foussard, tall, slender, and athletic, has an air of authority and decisiveness about him, yet he's charming. He spoke easily and well and came prepared. He anticipated my questions and answered them clearly and concisely.*

—RLR

**Minnesota Medicine:** Mr. Foussard, you are chairman of the board of trustees of the HealthEast Corporation. I am interested in your perspective on the role of the

trustee, particularly in today's health care environment. What was your business background, and how did you come to be on HealthEast's board of trustees?



Roger Foussard

“Hospital  
management must  
better educate  
trustees to  
understand and  
respond to the rapid  
changes in health  
care.”

**Foussard:** My business background has been in managing laundry operations for hospitals, both locally and nationally, as both a consultant and through a management company. In that capacity, I've been involved in the goings-on in hospitals throughout the country. For the past 15 years, I've been on the board of Baptist Hospital Fund, which operated Midway and Mounds Park hospitals. That group became part of HealthEast at the time of the mergers in 1987.

## HealthEast's Genesis

**Minnesota Medicine:** How did HealthEast come to be? What were the pressures that created it?

**Foussard:** The four St. Paul hospitals that would become HealthEast found themselves with similar problems in 1987—low utilization and little or no growth potential. Although each one had a strong history of success, and, in most cases, a very strong balance sheet, it became apparent to the hospitals' management, and ultimately to the directors, that there was no real possibility of going it alone in this particular market. Excess capacity and inability to negotiate good managed care contracts brought the

hospitals together. The initial HealthEast was formed between Health Resources, which operated St. John's Eastside and St. John's Northeast hospitals, and Baptist Hospital Fund, which operated Midway-Mounds Park. Almost immediately following those two, Bethesda Lutheran Hospital joined and later, St. Joseph's Hospital Carondelet.

**Minnesota Medicine:** Given such a variety of participants, it must have been confusing at first to determine HealthEast's mission.

**Foussard:** “Confusing” is probably an apt description. “Frustrating” and a “little scary” would also fit. We had



the good fortune of having farsighted management staff within the hospitals who saw the need to form HealthEast. The boards of each of the original sponsors also accepted and supported the mergers. But it was difficult. Many of the sponsoring groups had been serving the community for more than 100 years, and they came from different religious backgrounds.

Everyone believed in the formation of HealthEast but not without some fears. And those fears were certainly real; we found it necessary to close four hospitals and combine the management, medical staff, and all aspects of operations. This was extremely difficult. In three years of consolidating, we lost some very qualified people and lost a tremendous amount of money, due not only to expensive operations but also to the costs of closing facilities. Fortunately, we think those troubles are behind us. We have developed a management team that's doing an excellent job, and our board is very active in supporting and directing HealthEast.

### *Cutting Losses*

**Minnesota Medicine:** You experienced some heavy financial losses in 1987, 1988, and 1989. The Hunter Group was called in and recommended specific steps for you to take. You have taken these steps and have turned the corner. Would you tell us what was required to rectify the situation and where you are now?

**Foussard:** When the Hunter Group came in in the early part of 1989, HealthEast was changing its top management and was in technical default. The Hunter Group told HealthEast that it should return to tight management of the hospitals, reduce the size of its central corporate staff, reduce expansion into nonhospital businesses, improve managed care contracts to increase revenue, and reduce the overall staff by about 10 percent.

In addition to that, Hunter recommended that the board be reduced from 24 to 12 members in order for the board to be able to react more promptly and to keep its members better informed. Our board accepted the Hunter recommendations completely and, under our president, Tim Hanson, began implementation in April 1989.

We reduced our overall personnel costs by about \$10 million a year and increased our income by about \$10 million through renegotiating our managed care contracts. We also realized significant savings in supplies and other operating costs.

By the end of our fiscal year in August 1990, we showed a profit of about \$2.5 million. This was compared with losses of \$24 million in 1989 and \$35 million in 1988. Working capital was about \$3 million in July 1989 and increased to more than \$30 million in July 1990. This is after keeping up with all our payments.

All of this, we feel, has been the result of an intelligent

and hard-working management staff that has worked very closely with a supportive and strong medical staff. Throughout the merger, the medical staff believed in the long-range benefits of the HealthEast plan. Our market share in St. Paul and the surrounding area at the time of the merger was just about 50 percent. It continues at about 50 percent even through all of the problems of merging the hospitals. By following the Hunter Group's recommendations and by having our management team work closely with our medical staff and employees, we have turned the corner. HealthEast now can be a good provider of health care in our community and will be a strong financial organization in the future.

### *The Trustee's Changing Role*

**Minnesota Medicine:** What was the role of the trustees in this reorganization? Did you reassert yourselves? Did you redefine your role? Do you now look at the scheme of things differently?

**Foussard:** The trustees found that they had to be more intimately involved in HealthEast's policy- and decision-making processes than in the past. An important move during our turnaround period was the formation of an action committee made up of four trustees and the chairman. That action committee met frequently with Tim Hanson and his management executives. The board of trustees delegated decision-making authority to the action committee in order to speed up the process. I believe the action committee was instrumental in making the changes that had to be accomplished at HealthEast promptly and effectively.

As a result of merging all of these hospitals, the trustees today feel much more involved in the process—not the management—of establishing policy and goals and demanding accountability from management. Previously, we probably were not ready to ask the tough questions. Our board, having gone through a dramatic period, has come out better qualified and certainly better educated in the health care business.

**Minnesota Medicine:** So the trustee's role is much more interactive now?

**Foussard:** Yes, I would say that today a hospital trustee has an entirely different responsibility. The hospital trustee's role is very similar to that of trustees in other business corporations. Financial results are vital, but equally important are questions of how the hospitals should handle their limited resources. These questions must be asked by board members. Trustees must know what's going on with respect to hospital investments and must recognize the hospitals' limitations. At the same time, hospital management must better educate trustees to understand and respond to the rapid changes in health care.

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“The trustees today  
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**Minnesota Medicine:** In the last five to six years, the turnover rate of hospital chief executive officers has been in the 30 percent to 35 percent range. Do you believe this turnover has affected the relationship between hospital administrators and trustees?

**Foussard:** In the past, hospital administrators were able to be quite successful without drawing on the strength, knowledge, and support of their boards. Administrators may have felt that their boards offered good public relations within the community, but that they were not particularly important to the operations and success of the hospitals.

In today's environment, the thoughtful administrator understands that he or she needs the support of the board in all the hospital's activities. When it comes time for crucial decisions, the administrator needs to have developed a rapport with board members by keeping them informed and by using them for guidance and advice. With the board's support, the administrator will probably survive most problems.

I don't think close relationships between hospital administrators and their boards was the norm in the past. Many administrators found that their boards were not well enough informed, and that can't be remedied overnight or when a major problem arises. Today, the administrator who wants to stay in the position needs to have a thoroughly knowledgeable board that will ask the tough questions and support management when that's what's needed.

**Minnesota Medicine:** What are the rewards of being a hospital trustee?

**Foussard:** That's an interesting question. With all the inherent problems and time commitments now demanded of trustees, the rewards are pretty limited. People who are serving on hospital boards are committed to the community, and they understand the importance of health care. That's probably what draws them to it. However, that may not be a powerful enough incentive to keep good people on hospital boards in the future. There's a lot of debate about whether board members should be paid for their work. I'm not sure that's the right answer now, but in the future it may be. Essentially, I believe that board members must be treated as important parts of the organization. The feeling of being needed is many board members' reward.

**Minnesota Medicine:** I noticed in the newspaper that newly appointed Supreme Court Justice David Souter is a trustee on the Concord, New Hampshire, hospital board. Which brings to mind a question—is it difficult to attract prominent people to hospital boards?

**Foussard:** It's difficult to get very busy executives to give their time on a hospital board. However, as the old

saying goes: If you want to get something done, ask a busy person. I don't think it's impossible, by any means, for hospital boards to attract leaders from all areas, if the board is reasonably structured to respect its members' other commitments. You can get good, qualified people to serve on a board if you make the job interesting. Hospital boards are, after all, a big part of the community interest, and I think people want to be part of that.

A board's ability to reflect community sentiments is crucial, and that requires a diverse membership. A board

can't just represent special interests; it can't just represent professions; it has to represent the business community, the political community, and other areas as well.

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“Hospital  
management must  
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changes in health  
care.”

### *Managing with Managed Care*

**Minnesota Medicine:** How big an impact has the Twin Cities managed care environment had on HealthEast? The Twin Cities is known as a hotbed of competitive market systems. In managed care organizations, the road to profit is through limiting hospitalization and discounting charges to hospitals. How has HealthEast coped

with this extensive managed care system?

**Foussard:** HealthEast offers about the same percentage of services through managed care as other hospitals—about 50 percent. Before HealthEast existed, each hospital was negotiating its own contracts with the managed care organizations. That was a highly competitive situation, because there was more capacity than there was need, which resulted in some very unfavorable contracts for the hospitals.

One of HealthEast's main goals was to reduce the overcapacity. That's been accomplished. Now our hospitals, along with St. Paul-area hospitals, are pretty full. HealthEast is able to negotiate its contracts on a system-wide basis, which has allowed for much better consideration of actual costs.

In our management negotiations with the HMOs, HealthEast has been able to present accurate information about what it really costs to take care of a patient in a hospital. The HMOs have increased their rates to cover costs more adequately. Managed care contracts are always delicate and must be renegotiated nearly every year. But the elimination of excess capacity and a more favorable financial situation for the hospitals will help. Once you know your actual costs and you're efficient, you can negotiate from a position of strength.

### *Physician Trustees*

**Minnesota Medicine:** As you look to the future, do you envision the relationship between trustees and physicians changing? If so, what ideal form should it take?



Foussard: When HealthEast was formed, physicians made up one-third of its board. This proportion of physicians, as I understand it, was quite unusual for a major hospital system. For HealthEast, this was one of the most important strengths it would draw upon during the crisis. Physicians participated in the board's decision-making process, and they were able to relate to other members of the medical staff. This channel of authoritative communication helped keep the medical staff strong and supportive during the difficult times.

As I look toward the future, I see continued physician representation on the HealthEast board as being essential. Recently, we've invited members of the medical staff, in addition to the board representatives, to participate in our planning. We sense there is a feeling of more openness and increased physician trust that HealthEast's management is trying to improve St. Paul's health care delivery system.

I envision future participation by physicians at the highest level in hospitals, and I see some form of joint venture or partnership between hospitals and physicians. It seems to me if we're going to survive, we need a very strong central hospital organization with the financial resources to make things happen, and physicians must be an integral part of that central organization. I don't see hospital-physician antagonism as beneficial to anyone. I think the relationship has to be cooperative. Hospitals and physicians must understand each other's goals and work together to accomplish them.

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# Sustaining Life through Art and Medicine

Robert O. Fisch, M.D.

The relationship between art and medicine has been the subject of considerable discussion. There are strong forces among physicians and others who would like to eliminate the word "art," from "medical arts buildings," and who consider medicine only a science, not an art. I would like to share my own musings on this subject.

Early one morning I was driving on a highway. The sunrise made the sky azure blue, and the full moon shone like a silver seal over the horizon. The moon was beautiful, large, and mysterious. I looked away to pay attention to the traffic. A few seconds later, I looked up again and the moon was gone. What had happened? Had the road turned in another direction? Did the moon just fade away? Was it only my imagination? It was none of these: A little industrial smoke had obscured the sight on that glorious morning.

A little smoke can interfere with our view of a celestial object. We perceive only a fraction of a percent of the visible electromagnetic spectrum. Not only are our senses limited, but our thoughts can be obscured as well. Our minds can be influenced by minuscule, insignificant factors so that light, objects, and reality are improperly seen, interpreted, and comprehended. Yet, in spite of the limited perception of our senses, the human mind appears to have unlimited ability, reinforced with imagination, to discover, to create, and to enrich the quality of life. Imagination can overcome anything. With unlimited imagination, people have been able to invent that which extends the limits of the horizon for human perception and goes beyond the recognizable, to gather, analyze, comprehend, and create. These human abilities are equally applicable to the fields of art and medicine.

What is art? In my youth, a shoemaker made beautiful shoes for my family. Although it was a long time ago, I still remember vividly how the new pairs of shoes shone like mirrors. Just as the shoemaker appeared ready to hand the shoes over, he would take them back and start to rub them again and again. He clung to his shoes

as a child clings to its mother. He had put his talent, skill, and heart into those shoes; he did not want to give up his most recent "masterpiece."

Regardless of who we are or what we do, we have a choice of being either an artist—like the shoemaker—or a charlatan in our profession, recreation, or any aspect of our lives. Once, when someone asked Pablo Picasso, "What is art?" he answered, "What isn't?"

For me, art is a very useful complement to medicine. Not only does it give me an opportunity to do something different, but it is also a helpful, supportive addition to my activities. Art gives me appreciation for beauty, color, and even life itself. In medicine we face sorrow, tragedy, and sometimes joy. We provide strength and hope, and we offer the opportunity for scientific progress. It is a constant fight in which battles with diseases are won and the horizon expands

further over conquered ground, yet as we face imminent death, the ultimate war is lost. There is no final victory in medicine. We doctors only transform one problem into another and extend existence.

Art, however, is full of beauty; unlike medicine, there is no deterioration of the "product." If the artist communicates beyond a certain level, the art becomes immortal. Art survives over time, while the body fades away. Art is one result of the fear of death: we want our art to be an immortal monument beyond the mortal body, like the drawings by ancient people on cave walls. We want to leave behind a reminder that "I was here!" Art is an expression of joy for being alive; it is victory over mortality.

Art has given me another dimension or sensation that I do not get in medicine: the lonely experience of creation. Medicine requires the company of both doctor and patient in a cooperative, one-to-one partnership. In different ways, both art and medicine can provide an opportunity for creativity. For the artist, facing the empty canvas or paper is as exciting as it is for the doctor



Robert O. Fisch, M.D.



to begin examining a new patient. In both situations, insight, intelligence, experience, and intuitiveness are needed in order to come up with a solution, a creation. But the artist, unlike the doctor, does not need another person as a partner in that creation.

W. Kandinsky, the first abstract painter, wrote in his book, *Concerning the Spiritual in Art*, "If the science of the day before yesterday is rejected by the people of yesterday, and that of yesterday by us of today, is it not possible that what we call science now will be rejected by the man of tomorrow?" His premise holds true for art as well as medicine.

Preferential taste in art is a result of knowledge, time, age, experience, and many other circumstances. Once a young man asked an artist, "How do you know when a painting is good?" "Son, it hits you right in the chest!" was the answer. Taste in art is a subjective preference, a "gut reaction." In medicine we also have "gut reactions" based upon knowledge and experience, at times recog-

nizing or responding to presented symptoms, appearance, disease, complications, etc. But whereas in art we prefer individualism, lack of restriction, and the expression of diverse opinions, in medicine we restrain our preferences and apply uniformity, using measures of equality.

Art is an unrestricted communication, a need to express what we, the "artists," want or need to say to many. In medicine, however, we are constrained to deliver a clear message as a conclusion—that is, what the patient needs to hear when we communicate one-to-one.

Living is an art, and medicine is an art form to make life a little better and a little longer. Art and medicine are two consequences of the same desire to sustain life.

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*Robert Fisch, an artist by avocation, is a professor of pediatrics at the University of Minnesota and a frequent contributor to Minnesota Medicine.*

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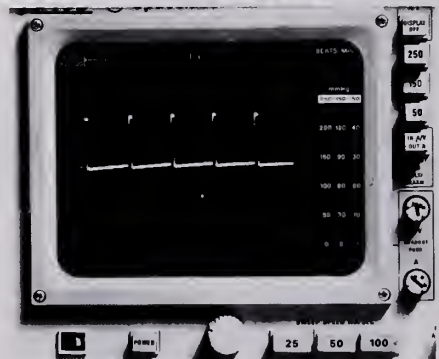
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# The Unity of Medicine and Literature

Elaine Challacombe

“**M**edicine and literature are united in an unremitting paradox—the need simultaneously to stand back from, and yet to share in, the struggle of human life.”<sup>1</sup>

There has been a long-standing natural association between literature and physicians, beginning with doctors as prolific creative authors to the more common relationship of today's doctors as readers. Physicians have used literature over time as a creative tool, as an alternate career, as a means of achieving catharsis, and as a teaching tool. As the medical profession has evolved from an art to a science, its use of and relationship to literature have changed, reflecting the position of the physician in culture.

For many centuries, physicians were major participants in cultural activity. A goodly percentage of literature published into the 10th century was created by doctors writing in the same linguistic style as the philosopher, the natural scientist, or the dramatist. The physician's social standing placed him in close proximity with those who had the means and education to participate in cultural activity. Physicians took advantage of the opportunity to be Renaissance men.

For example, William Cheselden (1688-1752), one of the premier surgeons of the 18th century, assisted his close friend Alexander Pope in editing Shakespeare. He participated in the architectural design and construction of a bridge over the River Thames while developing new surgical techniques for lithotomy, colostomy, and ophthalmology.

When Cheselden decided to produce the ultimate series of anatomical books, he enrolled in a painting class to improve his artistic ability. He was the first to employ

the camera obscura (an early optical device that was a predecessor to the modern camera) to produce accurate illustrations for *Osteographia*, his folio on comparative skeletal anatomy. It is unique among anatomies published over the centuries; his skeletons display a quirky sense of humor in their attitude and juxtaposition,

adding charm to the remarkable accuracy of the drawings. Cheselden exhibited a human sensitivity that captivates his readers in a way that today's clinical audience would find unacceptable, even though correct.

As medicine became increasingly “scientific,” doctors were drawn away from their literary use of language by the emphasis on “objective” observation. Not only was a literary style shunned as inconsistent with empirical study, but creative energy was channeled into research. Medical practice changed as radically as the society it served, reflecting the technological changes that produced a new cultural venue. By the time the Industrial Revolution was in full swing with its attendant problems of urbanization, population growth, and new occupational hazards, the physician was overworked and dreadfully underpaid. The physician's social status began

to drop as members of the profession increasingly came from the growing middle and working classes. The medical student was still exposed to literature and its virtues but now had little time, energy, or money to indulge in literary pursuits.

Physicians who had a penchant for writing most usually left or reduced their clinical practices to take up careers in literature. Keats, Rabelais, Smollett, Chekhov, Maugham, Conan Doyle, and a host of others left the



*A valedictory image from Cheselden's Osteographia, an atlas of comparable anatomy.*



medical profession to write, bringing with them their clinical insight and first-hand experiences with suffering.

A. J. Cronin is a prime example of a physician who, discouraged by the medical system as it existed in his time, left his financially and professionally successful practice to become a popular (and controversial) writer. By drawing on his own dramatic experiences as medical examiner of mines for Great Britain, his studies on the hazards of dust inhalation in hematite mines, and his various medical practices in small communities to fashionable London, Cronin was able to bring a credibility to his writings that keeps his books in print to this day. He used his literary skill to portray the positive and negative aspects of Great Britain's medical systems, as well as the good and the unethical practices of his medical colleagues.

Creating literary works allowed Dr. Cronin to achieve catharsis. Largely autobiographical works, such as *The Citadel*, expressed his pain of growing up destitute in an unloving environment and his frustrations with practicing in a less-than-perfect world.

Writing literary works remains a cathartic tool employed particularly by medical students. Many schools

produce publications composed of poetry, thoughts, and essays of student physicians attempting to cope with the overwhelming circumstances of disease.

In recent years, some medical training programs have employed the use of literature, with debatable success, to teach the young student to empathize with the patients with whom he or she works (see related story, page 19). A creative writer can help the student to identify with being ill, suffering pain, or dying. Experiencing a wide range of emotions through literature seems more intimate than viewing the same situations on video, a process that sometimes takes on a soap opera-like aspect that further removes the experience from reality.

Literature also is employed to train physicians to cope with the ever-growing body of ethical issues created by scientific advancements. Ethical dilemmas often do not have black-and-white resolutions that can be applied across the board. Physicians must develop their own responses to sensitive situations, and literary examples with a variety of consequences allow physicians to think through their responses in preparation for real life.

*Challacombe continued on page 20*

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"Physicians have used literature over time as a creative tool, as an alternate career, as a means of achieving catharsis, and as a teaching tool."

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### References:

1. Data on file, G.D. Searle & Co.
2. 1988 Joint National Committee: The 1988 report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. *Arch Intern Med* 1988;148:1023-1038.

### BRIEF SUMMARY

**Contraindications:** Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

**Warnings:** Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

**Precautions:** Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration.

Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

**Adverse Reactions:** Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°, 2°, 3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, increased urination, spotty menstruation, impotence. 12/21/89 • P90-W198V

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# Literary Medicine

Nancy J. Baker, M.D.

"All the world's a stage,  
And all the men and women merely players,  
They have their exits and their entrances,  
And one man in his time plays many parts,  
His acts being seven ages."

*"As You Like It," Act II, Sc. vii, 11*  
—William Shakespeare

Thus the drama of life unfolds. Whimsical Jacques in William Shakespeare's "As You Like It" proceeds to describe a nursing infant who becomes a whining schoolboy. This same child is then transformed into a woeful lover and later into a quick-tempered soldier. Middle age creates a round belly'd sage who is both comely and content. Before long, however, old age arrives and brings with it a shortened stature and a rise in voice. Last of all, man returns to a child-like condition that Jacques describes as "mere oblivion, sans teeth, sans eyes, sans taste, sans everything."

Likewise, families mature in a predictable, parallel fashion. Garcia-Shelton and Brody describe seven stages of the family life cycle.<sup>1</sup> Each stage, like Shakespeare's ages of man, consists of various developmental tasks and accomplishments. Initially, the genesis family, a new couple, attempts to define its autonomy and values. Next, the couple anticipates the birth of a first child. New conflicts arise when their children reach school age and then adolescence. The family later prepares for farewells. Near retirement, the husband and wife find themselves alone once again. They anticipate the final stage of the family life cycle when death becomes imminent.

Familiarity with the age and stage of transition of individuals and families enhances the family physician's ability to provide comprehensive medical care. Traditional means of teaching this material in family practice residencies include formal didactics, case presentations, and the use of videotaped interviews. Another approach is to study select works of literature that address themes relevant to certain life stages.

Literature imitates human experience. Joanne Trautmann, in her essay "The Wonders of Literature in Medical Education," claims that the terms "real" and "unreal" are not valid distinctions for the medical and literary worlds.<sup>2</sup> Literature informs us about basic human concerns. She writes, "... the first rate fictional world is a fully considered one. In it, lights are cast upon

shadowy corners or veils are stripped from dailiness. . . . Fictions are not bound, as medical studies are, by the actual patients who present themselves, the occasionally unreliable laboratory data, the regulations about human experimentation; fictions can test the marrow of the psyche without thinking of the classification of disease or possible therapy; they can see the diseased person simultaneously from the outside of the body, the inside of the mind, and the experience of the doctor watching the diseased."<sup>2</sup>

Common themes in literature include the balance of intimacy with personal autonomy, self-identity, death, loss, and the search for value in life. These comprise the developmental tasks that individuals and families face in their efforts to achieve personal satisfaction and gain social approval.

Literature reminds us that life is ambiguous. Its metaphors and symbols enhance our comprehension of the significance of day-to-day life experience. An important characteristic of a good physician is a tolerance for ambiguity.<sup>2</sup> This allows the physician to draw conclusions when data are incomplete.

Literature also teaches the importance of clarity in communication and the appropriate use of language. A greater sensitivity to vocabulary increases a physician's understanding of concerns patients articulate. In addition, a language-sensitive physician may be better able to speak and write clearly. This improves communication with patients, as well as colleagues.<sup>3</sup>

Authors increase a reader's capacity for compassion and empathy by presenting several viewpoints simultaneously. Heroes and heroines of fiction experience life-like events and model behaviors that can be analyzed. By understanding these characters, the physician has greater potential for empathizing with patients.

Poetry and prose are, in and of themselves, life-affirming. No matter how dismal the content or negative the experience, the work has been created to enrich human experience.<sup>2</sup> In this manner, literature takes a reader beyond the immediacy of current events and looks for global significance.

Finally, familiarity with great works of literature may foster creative writing by physicians. Indeed, the drama enacted daily in the context of the doctor-patient relationship could inspire a masterpiece. Physician writers like Anton Chekhov, A. J. Cronin, William Carlos Williams, and others serve as worthy mentors to us all.

*Continued*



*Nancy Baker, a family physician with the Ramsey Clinic in St. Paul, Minnesota, for five years has taught a formal curriculum on literature and medicine that she developed for first-, second-, and third-year family practice residents at St. Paul-Ramsey Medical Center.*

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## Challacombe Perspective

*From page 16*

Reading good literature also can affect the physician's use of language—certainly an invaluable tool. The physician depends on accurate use of language to record case histories (stories in and of themselves), to treat patients effectively, and to publish in professional journals. Poor language usage will harm performance in all these areas.

"Literature helps the doctor to read, explicate and interpret, as well as to control language; literature holds up the widest assortment of varieties of human behavior."<sup>2</sup> We rely so heavily on visual communication (television, slide presentations, videos) that we need literature to remind us of the power of language in conceptualization and communication.

Physicians can change people's perceptions of the world and draw them into the drama of scientific research. Lewis Thomas remains a popular essayist who has taught us to respect (and rethink) our place in the natural order through his clinical perspective of symbiotic relationships. One is left with a sense of optimism—sometimes contentment, sometimes fear, but always a smile—after reading his work, because of his skillful control of language and the literary form of the essay. He reverses the use of literature as a tool to teach physicians to temper their clinical world with humanity by using literature to teach the lay public to view the world with a scientific eye.

The relationship between medicine and literature continues to change only to remain the same. MM

*Elaine Challacombe is the acting curator of the Wangenstein Historical Library of Biology and Medicine at the University of Minnesota's Biomedical Library.*

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# To Lend a Hand

## *The Magic of Music and Medicine*

Robert T. Laudon

In the last 18 months, I have been introduced to the wonderful world of ultrasound, heated pools, stretching exercises, physical therapists, orthotics, and analgesics—things that I never knew existed and that have brought back a *joie de vivre* that was ebbing under a wave of “just” osteoarthritis. Medicine has lent a hand. Perhaps my rheumatologist would not approve the word I would use: *magic*.

As my vitality returned, I began to ponder whether my chosen field of music could lay claim to some of that magic, an ability to restore the precious unaging spirit we hold so dear even as the body ebbs. The answer was clear for me, but some doubts arose as I contemplated the manifold things music means to people.

For some, music is a sport, a performance sport. Like tennis, we have our young wizards, our Changs; we have our schooled professionals, our Lendls; we have our players who love the game, our Navratilovas and Connorses. The musical-sportive audience, too, is just waiting to burst into cheers when the tenor finds his ringing note, when the violinist plays the impossible passage, when the pianist makes a percussion instrument sing.

For some, music is background. We shop along the Nicollet Mall to a Vivaldi concerto; we drill teeth to Muzak, we cut the lawn or party to rock. Rhythm is just about all this group hears (I was tempted to say “bears” in relation to present-day volume levels). The pianist begins the “Moonlight Sonata,” the slow triplets are grasped, and then the mind wanders onto more important things—the shopping list, what we are wearing, whether we should drive or fly.

For some, music is a logical exercise. These people are immersed in the mathematics of an intricate system. They live in a world of lowered submediants, prolongations of the dominant, chromatic appoggiaturas, and octotonic scales. Certain ones of this group are blessed (cursed?) with absolute pitch, so that they automatically see a complete score of the music unfolding in their minds. Fortunately, many of the theoretically minded go beyond their systematization, but, occasionally, one of them is so lost in technique that she or he must be reminded that the “II, in the key of D-flat major” of

Debussy’s “Girl with the Flaxen Hair” is really a “melody.” Similarly, I would imagine that, from time to time, the physician has to remind him or herself that a “case” is really a “person.”

For some people, music is a profoundly moving experience. They sense the analogies between the rhythms of music and the movements of the emotions, between the ebb and flow of musical tension-release and similar feelings in human life. They would often be hard-pressed

to explain the reasons for their reactions; they seldom have the technical terms of the mathematical group. A fine singer once concluded a song, leaving the accompanist to add a postlude to round it off. When the accompanist hacked his way through the passage, the singer bawled him out back stage, despite the accompanist’s excuse that no one would know. “Yes,” retorted the singer, “the great audience that knows nothing but feels everything.”

My list of what music means to people could be expanded to include those groups who understand music in its historical context, those who use it almost as hypnosis, those who

hear it as a group of do-re-mi syllables, those who relate it to finger positions on an instrument, those who regard it as a branch of physics, etc. Fortunately, these responses overlap. Listeners react on several levels, in part because the art is complex enough to be scrutinized in many ways.

But the basic question remains: What is it that is common to all these experiences? I believe it is music’s power to lift one above ordinary experience, to lend a hand in this marvelous journey we call life. It is a paeon (a Greek term for healing). It arose in the magical rites of antiquity. Orpheus addressed the underworld:

“As he sang these words to the music of the lyre, the bloodless ghosts were in tears. Tantalus made no effort to reach the waters that ever shrank away, Ixion’s wheel stood still in wonder, the vultures ceased to gnaw Tityus’ liver, the daughters of Danaus rested from their pitchers, and Sisyphus sat idle on his rock. Then for the first time, they say, the cheeks of the Furies were wet with tears, for they were overcome by his singing.”<sup>1</sup>

We should expect much of the art that carries the name of the muses themselves. Odilon Redon, pioneer of

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“We are privileged,  
we who perform the  
magic—musical or  
medical—that restores  
the human spirit and  
expands our  
perspectives.”

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## Harmonie Universelle

Father Mersenne, the Minorite friar who served as the scientific clearinghouse of Europe and who published Galileo's *Two Systems* at the time when it was proscribed, was devoted to science and saw no conflict between his religious calling and the new inquiry. He was equally devoted to the arts and especially to music, which he saw, with its mathematical and physical basis, as the mirror of the universe and which, with certain consonances, could "seize the mind" (he uses the medical term *atteinte* for seizure), "charm away depression" (*les ennuis*), and "transform cruelty and brutality of depraved temperaments into virtue." In this engraving, Orpheus is charming the wild beasts, and the son of the Muse Calliope is associated in Mersenne's mind with the Christian Savior. The "universal harmony" of the world is then attached to the psalm text, "I will also praise thee with the psaltery, even thy truth, O my God: unto thee will I sing with the harp, O thou Holy One of Israel."

Just about 30 years before Mersenne's book, opera got its first start in Monteverdi's portrayal of *Orpheus*, a story in music. The preface to this opera is sung by the Spirit of Music who expresses ideas similar to Mersenne's:

Io la musica son, ch'ai dolci accenti  
So far tranquillo ogni turbato core  
Ed or di nobil' ira ed or d'amore  
Poss' infiammar le più gelate menti.

Io su cetera d'or cantando soglio  
Mortal orecchio lusingar talora,  
E in questa guisa a l'armonia sonora  
De la lira del ciel più l'alme involgio.

I am Music, who with soft tones  
Knows how to quiet each troubled heart  
And now with noble anger or with love  
Can ignite the most frozen minds.

I with my golden lyre sing so  
That mortal ears are charmed thereby,  
And thus to the sonorous harmony  
Of Heaven's Lyre I entice the soul.



Nam & ego confitebor tibi in valis psalmi veritatem:  
Deus psallam tibi in Cithara, sanctus Israel. Psalm 70.

The frontispiece from *Harmonie Universelle* (1636), by Father Marin Mersenne.

modern visual art and himself a violinist, said it well: "Music is the leaven, the yeast, of a special acute sensitivity as much as and more than passion itself. It is a danger but a blessing for the person who knows how to deal with it. I mean that its charm is irresistible, that one's spirit escapes with it so swiftly into a better world that one can sometimes postpone until later, with neither plan nor reason, the accomplishment of certain tedious acts which are quite necessary."<sup>2</sup>

It is in recognition of its dangers that I have used the phrase "to lend a hand," something that medicine, too, must do as it recognizes both possibilities and perils.

A few years ago, I was one of a small group invited to a private dinner with Sir Ernst Gombrich, the eminent art-historian. I was introduced as a music-historian. In the midst of dinner, he turned to me and asked me what I thought was the ultimate value of my work. Reluctant as I was to address such an authority, I gulped and answered that, after all was said and done, my work was like a journey to a foreign land. It changed my perspective and allowed me and others to come back with new

viewpoints. He was delighted and told me that he felt that work in the arts was so fascinating that we should pay for the privilege of doing it.

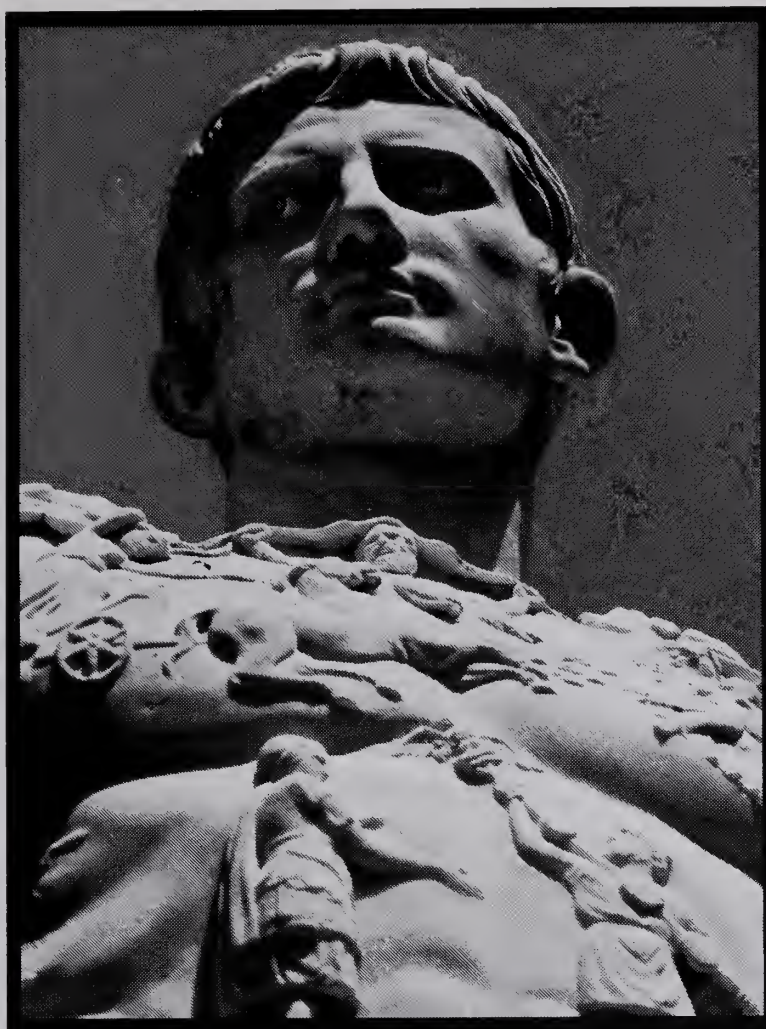
This is an inspiring attitude—a reflection of music's magic. Still, I don't recommend this altruistic spirit as a way of *encouraging* the arts—any more than I might suggest that the physician *pay* for the privilege of exercising his or her skills, techniques, and emotions.

But we are privileged, we who perform the magic—musical or medical—that restores the human spirit and expands our perspectives. MM

*Robert Laudon is a professor emeritus in the School of Music at the University of Minnesota in Minneapolis.*

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# Rembrandt's 'Dr. Tulp's Anatomy Lesson'

Herbert Scherer

Rembrandt van Rijn's "Dr. Tulp's Anatomy Lesson" was painted in 1632, relatively early in a career that lasted until 1669. In subject matter, technique, and style, the "Anatomy Lesson" is an emblem of its time and place. The fact that the "Anatomy Lesson" is by Rembrandt, an artist whose name belongs among the masters of all time, makes our study of this painting worthwhile.

European art in the 17th century was marked by great changes in style and subject matter. A major group of artists continued in the grand and noble style and subject matter of the Renaissance masters. Their subjects were still religious, but based on past examples. Confronted with the need to preserve faith in the Church, which faced Protestant dissent, theatricality and emotionalism became commonplace. Dramatic movement and melodrama were used to help convince a population of wavering faith.

Another group of artists was trying to appeal to the senses as well. These artists, the realists, took to portraying everyday subjects that had not been dealt with before, such as card players and tavern scenes. This simple realism was based on the look of things. Caravaggio, an Italian artist who worked in about 1600, was the major exponent of this kind of art. He painted scenes of cardsharps and swindlers, but he also painted religious subjects. What was new was that he presented religious topics in a literal, realistic view similar to a Hollywood film noir. His work was based on the everyday look of things—no idealization—and marked with dramatic lighting. Caravaggio's art had a tremendous influence on northern artists living in Italy, and by the first decade of the 17th century, almost all the major painters in Europe.

The Netherlands in the 17th century was predominantly Protestant. As a result of incredible industriousness and zeal, Holland was quite prosperous. It was a comfortable middle-class prosperity, quite different from the wealth of aristocrats in neighboring Catholic Flanders.

The Protestant faith had no use for showy altar paintings, or, indeed, religious art in general. More appealing were small-scaled art works, usually paintings, that would fit easily into domestic surroundings. Having recently won their independence from Catholic Flanders, the Dutch now set about to enjoy their freedom and financial success. Accessible, understandable subjects were the order of the day: seascapes, landscapes, scenes from everyday life (often with a humorous bent), still lifes that celebrated the transient beauty of flowers and fruit. Above all, the Dutch celebrated their own

achievements by means of portraits, single and group.

Rembrandt established himself as an independent artist at the age of 20 in Leiden. It was a lively place to be and was, among other things, a university town. But by late 1631 or early 1632, it was clear that he needed a larger stage for his activities. Amsterdam was to provide that stage. At the time Rembrandt moved there, Amsterdam was the leading seaport in northern Europe. It would later develop into a rich cultural center with theaters and a university, but when Rembrandt set up his studio, commerce was king. The sights and sounds were colorful and romantic, its harbor filled with ships, its canals filled with boats, its many business establishments flanked by colorful bales and crates of merchandise. Surgeons of the day advertised themselves with poles painted in red, white, and blue stripes. Each color had its significance: red showed that the surgeon was able to bleed patients, white indicated he could pull teeth or set bones, and blue signified that if there was nothing else to do, he could at least give the customer a shave.

The sights and sounds of Amsterdam were appealing, but Rembrandt was not to be caught up in the painting of everyday scenes that attracted so many of his fellow artists and sold so well. His eyes on achievement, status, and income, Rembrandt chose portraiture as his chief subject. Rembrandt's reputation preceded his move from Leiden. Soon after he arrived, he struck up a business arrangement with Hendrick van Uylenberg, who operated an "academy" or, more properly, an art factory. This academy was attended by young artists who reproduced copies of paintings by well-known artists for sale. Rembrandt was beyond such hack work, but he probably found it convenient to live and work in van Uylenberg's house. It is not known exactly what services Rembrandt performed for his lodging, but it is known that his paintings were routinely copied and sold in the provinces. It seems that it was under van Uylenberg's roof that Rembrandt painted his first commissioned portraits.

Rembrandt painted the "Anatomy Lesson of Dr. Tulp" in 1632. Public dissections and anatomy lessons in Amsterdam date from 1555. It was in that year that King Philip II issued a prerogative to the effect that these lessons or dissections were to take place under the supervision of a qualified physician. This law was amended in 1606, so that in addition to the single dissection of an executed criminal, other dissections by surgeons could be performed privately. In Dr. Tulp's own *Observationum* . . . (1641), it is noted that he



"Dr. Tulp's Anatomy Lesson," by Rembrandt.

performed more than one autopsy in the presence of surgeons and pathologists in his work as a pathologist. Public anatomy lessons served several functions in addition to entertainment. There was first and foremost the purpose of furthering knowledge of the human body. The bodies used for public dissections belonged to recently executed criminals, so that, in a sense, a moral purpose was served as well.

The group portrait was a long-established and peculiarly Dutch institution that came from the desire of guilds, charitable society boards, militias, and other civic groups to adorn the walls of their offices and meeting-houses with decorative memorials. Usually, a group portrait included half a dozen and sometimes as many as 20 or more individuals, each of whom contributed to the painter's fee. These commissions were lucrative for the artists, but they presented real problems. Each member of the group in democratic Holland expected equal prominence in the finished painting. He or she, after all, was paying for it. Given this necessity, the results were usually quite uninteresting, the artist forced to arrange all the participants in straight lines or crescents. One need look no further than a modern-day college year-

book with its group photographs of fencing and debating teams to see the problem facing the painter of group portraits.

In the "Anatomy Lesson," the prelector, Dr. Nicholas Tulp, is seen in the act of demonstrating to seven surgeons the muscles of the partially dissected left arm of a dead man. Tulp is seated in an armchair in a niche. He is attired in the then-fashionable black cloak, flat white collar, and white cuffs. His importance in relation to the other figures is indicated by his hat. Only Hartman Hartmanzoon, the surgeon closest to Tulp, is wearing a thicker, old-fashioned ruff. With his right hand Tulp is holding a forceps with which he is lifting a group of muscles, and with his left hand he makes a rhetorical gesture.

The corpse is arranged diagonally in the composition. Close by stands a pile of books, one of which has been propped open. No one has been able to identify it exactly, but several writers have supposed it to be Vessalius' 1555 edition of the *Fabrica*. Other writers have suggested later Dutch texts. In any case, a large anatomical folio was an important part of such proceedings. Behind the auditors, on the wall, hangs a scroll.





"Dr. Sebastiaan Egbertzoon de Vrij's Anatomy Lesson," by Aert Pieterzoon. *Amsterdams Historische Museum.*

In undertaking such an important commission, it seems natural that Rembrandt would have consulted earlier examples of the same subject. The first of these, by Aert Pieterzoon, was completed in 1603 and shows Dr. Sebastiaan Egbertzoon de Vrij, prelector between 1595 and 1621. He is surrounded by 28 members of the Surgeons' Guild. In 1619 Dr. De Vrij again appears, this time surrounded by five men in a portrait by Thomas de Keyser. A 1625 painting by Nicholas Eliazoon, called Pickenoy, shows Dr. Johan Fonteyn, prelector from 1621 to 1628, surrounded by six surgeons. Only a fragment of this painting survived a 1723 fire.

All three works are primarily group portraits of the prelector and surgeons. The secondary emphasis is on the "lesson," and it should be added that we cannot be sure in each case exactly what the subject is. In the Pieterzoon painting, the corpse is still whole. In the de Keyser painting, the subject is a skeleton, which tells us it is not a public anatomy lesson but a lecture in osteology. In the Pickenoy work, only a cranium is to be seen, hardly suggesting a public anatomy lesson.

These portraits graced the walls of the Surgeons' Chamber, and these men, dressed in their best formal attire, became representatives of their profession.

In some ways Rembrandt followed tradition, but in others he did not. Evidence seems to point to the second of Dr. Tulp's public lectures on January 31, 1632, as the one Rembrandt painted. If that is so, then it seems likely the corpse is Adriaan Adriaanzoon 't Kint, a criminal who was executed by hanging that day. Notably, the neck of corpse is not visible in the painting. The chest is lying in a slightly raised position as if a block had been placed between the shoulders. The head has fallen back. Was the artist trying to conceal the bruises about the neck? Or, perhaps Rembrandt's model was a body from another dissection he attended.

The cadaver is interesting because it is mostly intact. Typically, a dissection would have begun with the opening of the abdominal cavity, since this contains the

organs subject to rapid decay. Over the years there has been much discussion about the accuracy with which Rembrandt depicted the left arm of the corpse. Several possibilities suggest themselves: Rembrandt worked from a prepared specimen and then "attached" it incorrectly, or, Rembrandt worked from an illustration, with the same result.

In comparison with the anatomy lessons of his immediate predecessors and contemporary artists, Rembrandt provides us with a much more subtle composition, a sense of involvement by the surgeons, and a sense of participation in an affair of human significance.

Aert Pieterzoon's 1603 "Anatomy" is perhaps the stiffest of the three lessons. The participants are arranged in horizontal rows in the traditional group portrait manner. Dr. Egbertzoon is not readily identifiable as the principal in this scene. Ultimately, one discovers his importance by means of the tool he holds and his position vis à vis the cadaver. Compare this to Rembrandt's Dr. Tulp, who clearly holds the stage at the right by means of his commanding position, his hat, his gesture, and the architectural niche that serves to emphasize him.

Thomas de Keyser, the most distinguished of Rembrandt's contemporaries, provides us with interesting individual portraits. The overall composition, however, is static, neatly divided in two by the skeleton. In choosing to portray a skeleton as the symbol of the surgeons' profession and activity, the artist has taken away the immediacy of the surgeons' involvement with an integral part of their profession. It has been said that the group might just as well be examining a statue. The involvement of all the members of this group is somewhat artificial. Dr. Egbertzoon's gesture is pure rhetoric.

Pickenoy's 1625 "Anatomy Lesson" is very much in the tradition of the group portrait. In this case, only a skull is used to represent the profession of the group, and, again, the arrangement is symmetrical.

Rembrandt broke away from the stiff representation



*"Dr. Sebastiaan Egbertzoon de Vrij's Anatomy Lesson," by Thomas de Keyser. Amsterdams Historische Museum.*



*"Dr. Johan Fonteyn's Anatomy Lesson," by Nicolaes Eliaszoon. Amsterdams Historische Museum.*



of traditional group portraiture. He used some dramatic compositional devices, such as the diagonal extension into space of the corpse and the dramatic spotlighting of the principals of the scene. The effect is dramatic and lively. One has the sense that each of the men is participating in an act of significance.

One interpretation of the meaning of this painting suggests the "Triumph of Sapientia over Malitia," that is, wisdom over evil, implying that all persons concerned—the dissected criminal, as well as the surgeons—will enjoy immortality as a result of scientific research in the public interest.

The painting presents an unusual mixture of realistic observation, borrowing of stylistic elements from antecedents and contemporaries, and, finally, innovation by Rembrandt himself. It was his gift that, when presented with a traditional and somewhat humdrum subject, he could create a vibrant and lively artwork. MM

*Herbert Scherer is an associate professor at Wilson Library at the University of Minnesota in Minneapolis. He has served as art librarian for 24 years and lectures in art history and methodology.*

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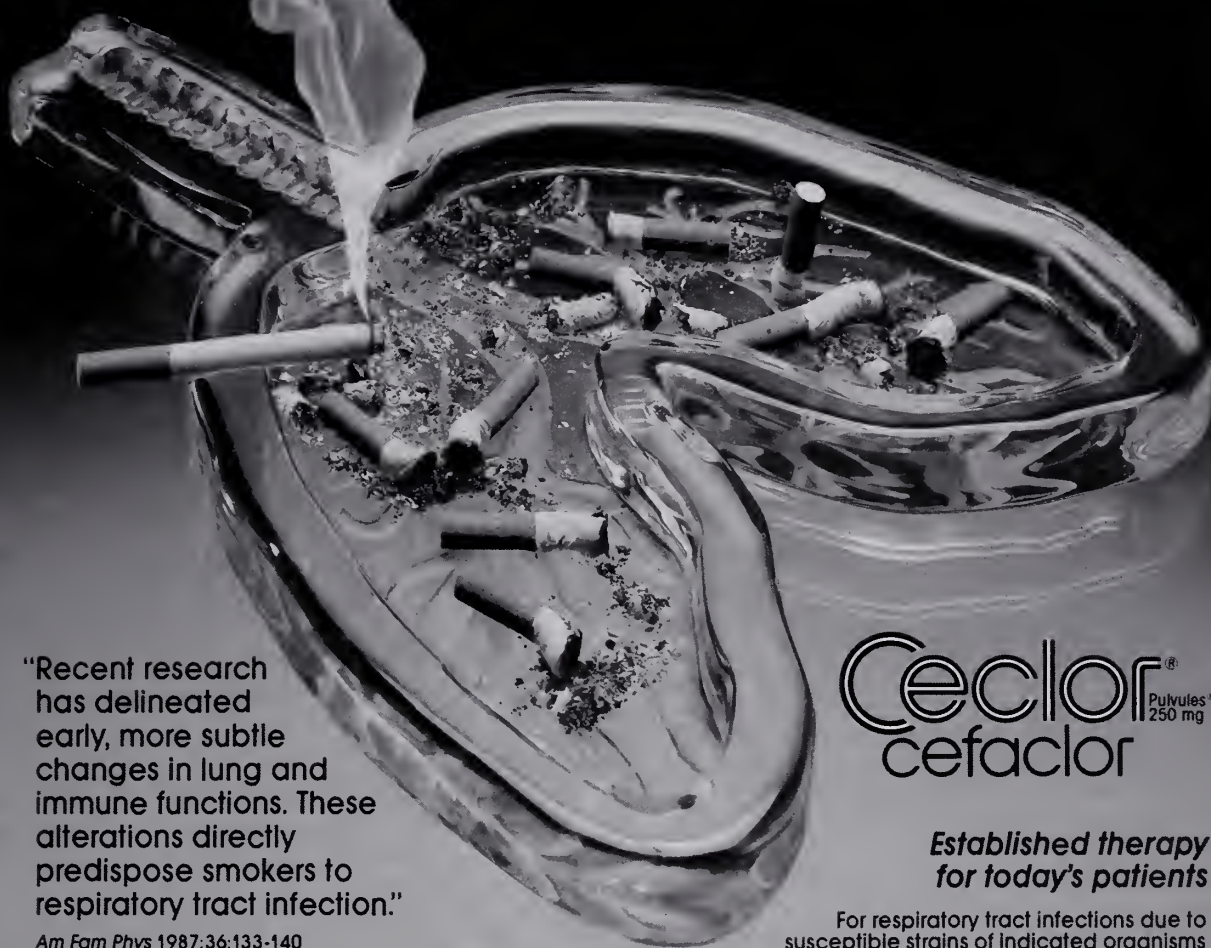
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Therapy-related adverse reactions are uncommon.

Those reported include:

- Hypersensitivity reactions have been reported in about 1.5% of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions have been reported with the use of Ceclor. These are characterized by findings of erythema multiforme, rashes, and other skin manifestations accompanied by arthritis/arthralgia, with or without fever, and differ from classic serum sickness in that there is infrequently associated lymphadenopathy and proteinuria, no circulating immune complexes, and no evidence to date of sequelae of the reaction. While further investigation is ongoing, serum-sickness-like reactions appear to be due to hypersensitivity and more often occur during or following a second (or subsequent) course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults with an overall occurrence ranging from 1 in 200 (0.5%) in one focused trial to 2 in 8,346 (0.024%) in overall clinical trials (with an incidence in children in clinical trials of 0.055%) to 1 in 38,000 (0.003%) in spontaneous event reports. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy; occasionally these reactions have resulted in hospitalization, usually of short duration (median hospitalization = two to three days, based on postmarketing surveillance studies). In those requiring hospitalization, the symptoms have ranged from mild to severe at the time of admission with more of the severe reactions occurring in children. Antihistamines and glucocorticoids appear to enhance resolution of the signs and symptoms. No serious sequelae have been reported.
- Stevens-Johnson syndrome, toxic epidermal necrolysis,

and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.

- Gastrointestinal (mostly diarrhea): 2.5%
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial nephritis.

#### Abnormalities in laboratory results of uncertain etiology.

- Slight elevations in hepatic enzymes.
- Transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia.
- Rare reports of increased prothrombin time with or without clinical bleeding in patients receiving Ceclor and Coumadin concomitantly.
- Abnormal urinalysis; elevations in BUN or serum creatinine.
- Positive direct Coombs' test.
- False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinistest<sup>®</sup> tablets but not with Tes-Tape<sup>®</sup> (glucose enzymatic test strip, Lilly).

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# Home Heparin Infusion in the Management of Deep Vein Thrombophlebitis

*Khalid Mahmud, M.D., F.A.C.P., Joseph M. Keenan, M.D.,  
and Mary B. Bennett, R.N.*

## ABSTRACT

Feasibility of home Heparin infusion in the management of deep vein thrombophlebitis (DVT) was assessed in 15 patients. Patients with chest pain, dyspnea, bleeding tendencies, immediate postoperative state, and lack of reliable care giver were excluded. Five patients received the entire course of Heparin infusion at home and 10 were initially started on Heparin in the hospital. Regular assessment and monitoring of blood coagulation parameters were performed by a visiting home nurse clinician in consultation with the attending physician. Eleven physicians were involved in this management and made a total of six physician home visits. Results showed improvement in all but one patient, who had advanced malignancy and resistant thrombophlebitis and who eventually died. No complications occurred among the patients studied. Patient and family surveys indicated a high degree of satisfaction and preference for this modality of care. Analysis of cost indicated a 48% savings compared with similar treatment administered in a hospital setting.

Despite general trends toward outpatient therapy, most of the 250,000 annual cases of deep vein thrombophlebitis in the United States<sup>1</sup> are treated by Heparin infusion therapy in a hospital setting.<sup>2</sup> Hospital management is not only expensive but also associated with injuries, medication errors, and nosocomial infections.<sup>3-6</sup> Pulmonary embolism, a serious complication of DVT, tends to occur earlier, during the stage of "phlebothrombosis," rather than later, during the "thrombophlebitis," when inflammation and organization have fixed the thrombus to the vessel wall.<sup>7</sup> It, therefore, seems reasonable that such full-fledged cases of thrombophlebitis could be managed at home with minimal risk if around-the-clock help were available. This report describes our experience with 15 patients with DVT who received Heparin infusion in the home, and it examines the feasibility, safety, cost effectiveness, and patient acceptance of such management.

## Methods

Patients were accepted into the study according to management guidelines that required: 1) Proof of diagnosis; for example, a positive venogram; 2) absence of chest pain, dyspnea, underlying known bleeding disorder, recent history of bleeding ulcer, and an immediate postoperative state; and 3) patient and/or care giver reliability.

Patients were randomly admitted to the program by their primary physicians and followed in the home by primary care nurses who were available 24 hours a day. The nurses assessed the patients daily, obtained blood samples for coagulation parameters such as PTT and PT, and called the primary physicians daily

for orders and adjustment of therapy. The nurses were expected to report any change in clinical status, bleeding complications, medication-related reactions, and IV-access-related complications. The physicians were asked to make home visits as necessary and at their discretion.

The actual cost of home therapy was compared with the estimated hospitalization cost of \$530 per day for 1987 and \$580 per day for 1988. The estimated hospital cost also included the physicians' daily rounds charges. The cost estimates were derived from Council of Hospital Corporations' data by subtracting radiology and operating room charges from the average total charges for local community hospitals.<sup>8</sup>

A survey was sent to patients following completion of therapy. It measured patient satisfaction with regard to ease of the admitting and billing process; skill, sensitivity, efficiency, and promptness of nursing personnel; and the quality and thoroughness of information provided to patients and families.

## Patients and Results

Patient characteristics and results are shown in the accompanying table. Four men and 11 women ages 24 to 94 participated in the study. Fourteen patients had DVT involving the lower extremities and one had thrombosis of the subclavian vein secondary to a clotted subcutaneous port. Fourteen had positive preadmission venograms. One had a positive preadmission venous impedance plethysmogram (VIP). All had clinical symptoms of pain, tenderness, and swelling. A positive Homans sign was mentioned in the records of five. Seven patients had a coexistent malignancy. Three had a history of thrombophlebitis. Ten patients received initial Heparin



Table

*Patient characteristics, treatment, and results*

| Patient Age/Sex | Pain Swelling Tenderness | Venogram         | Significant Coexistent Conditions                | Initial Hospital Days | Home Mgmt. Days | M.D. Visits | Clinical Outcome  | Complications | Patient/Family Satisfaction Survey |
|-----------------|--------------------------|------------------|--------------------------------------------------|-----------------------|-----------------|-------------|-------------------|---------------|------------------------------------|
| 1. 24, M        | +LLE                     | +                | Paraplegia, bedsore                              | 9                     | 6               | 2           | Improved          | None          | +                                  |
| 2. 70, M        | +RLE                     | +                | Brain tumor                                      | 3                     | 3               | 0           | Improved          | None          | +                                  |
| 3. 47, F        | +LLE<br>(+Hamans)        | +                | Small cell lung cancer                           | 0                     | 7               | 1           | Improved          | None          | +                                  |
| 4. 63, M        | +LLE<br>(+Hamans)        | +                | Small cell lung cancer                           | 0                     | 13              | 2           | Improved          | None          | +                                  |
| 5. 53, F        | +RLE                     | +                | Advanced breast cancer                           | 3                     | 3               | 0           | Improved          | None          | Na response                        |
| 6. 68, F        | +LLE<br>(+Hamans)        | +                | Colon cancer with bone metastasis                | 0                     | 5               | 1           | Improved          | None          | +                                  |
| 7. 74, F        | +RLE<br>(+Hamans)        | +                | History of stroke<br>Migratory phlebitis         | 3                     | 6               | 0           | Improved          | None          | Na response                        |
| 8. 26, F        | +LLE                     | +                | Pregnancy, 22 weeks                              | 7                     | 22              | 0           | Improved          | None          | +                                  |
| 9. 94, F        | +LLE                     | Not done<br>VIP+ | Recent history hip Fx.<br>Atrial fib., ASHD      | 2                     | 8               | 0           | Improved          | None          | N/A<br>Confused                    |
| 10. 75, F       | +LLE                     | +                | History of MI                                    | 0                     | 3               | 0           | Improved          | None          | +                                  |
| 11. 60, F       | +RLE                     | +                |                                                  | 4                     | 3               | 0           | Improved          | None          | +                                  |
| 12. 36, F       | +L<br>Subclavian         | +                | Clotted Port-A-Cath                              | 5                     | 4               | 0           | Improved          | None          | +                                  |
| 13. 57, F       | +LLE                     | +                | Knee surgery with phlebitis one month previously | 0                     | 11              | 0           | Improved          | None          | +                                  |
| 14. 43, F       | +LLE                     | +                | Breast cancer with brain metastasis              | 17                    | 26              | 0           | Unimproved (died) | None          | +                                  |
| 15. 56, M       | +LLE<br>(+Hamans)        | +                | Obese/history of recurrent thrombophlebitis      | 4                     | 8               | 0           | Improved          | None          | +                                  |

in the hospital followed by infusions at home. Five patients received the entire course of Heparin infusion at home. Two patients had unusually prolonged duration of therapy: Patient No. 8, who was pregnant and had phlebitis, received seven days of infusion in the hospital followed by

22 days at home until pain and tenderness subsided, at which time she was switched to subcutaneous Heparin. Patient No. 14, who had advanced breast cancer and brain metastases, received seven days of Heparin in the hospital followed by 26 days at home. This patient did not

improve and eventually died. All other patients improved clinically and were switched to oral anticoagulation. No complications occurred. Specifically, there were no episodes of bleeding or pulmonary embolism. The physicians made a total of six home visits, mostly of patients who

had not been hospitalized initially.

The average length of stay (hospital plus home) was 13 days. However, when the two outliers (patients 8 and 14) were excluded, it was 8.2 days, which compares favorably with the national ALOS of 8.3 days.<sup>9</sup> The total cost to the patients for days of home treatment was \$38,143, compared with the estimated cost of \$73,190 had these infusions been given in a hospital setting. This represented a 48% cost savings. The patient/care giver survey was returned by 12 patients and indicated a high level of satisfaction.

### Discussion

Traditional management of DVT with Heparin infusions occurs almost exclusively in the hospital rather than at home because of concerns for patient safety. To our knowledge, ours is the first program that has attempted entire courses of Heparin infusion in the home. Our results suggest that with appropriate guidelines, 24-hour nursing coverage, and physician willingness to make necessary house calls, it is possible to minimize risk and deliver such treatments in the home. The results also suggest that such treatments may eliminate the chance of such hospital-acquired

complications as nosocomial infections, as well as substantially reduce the cost of care. Furthermore, patients and families appear to prefer home management to hospitalization. This series, although small and limited in scope, offers an argument to further evaluate alternatives to hospital-based care.

MM

*Khalid Mahmud is an internist hematologist-oncologist and medical director of oncology at North Memorial Medical Center, Minneapolis, and an associate clinical professor in the Department of Family Medicine at the University of Minnesota, Minneapolis.*

*Joseph Keenan is an assistant professor in the Department of Family Practice at the University of Minnesota, Minneapolis.*

*Mary Bennett is director of Clinical Operations at CareVan Medical Systems, Inc., in Minneapolis.*

*Dr. Mahmud presented an abstract of this paper at the November 2, 1990, meeting of the American College of Physicians in Rochester, Minnesota.*

*Reprints: Khalid Mahmud, M.D., F.A.C.P., 3253 West Broadway, Robbinsdale, MN 55422.*

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# Informed Consent

## *Enhancing Physician-Patient Communication*

*Second of two parts*

To address common misunderstandings about informed consent, the Midwest Medical Insurance Company (MMIC) held a roundtable discussion with physicians, insurance professionals, and a defense attorney. Part one of the discussion appeared in the October 1990 *Minnesota Medicine* and provided a definition of informed consent, explored some problems surrounding the issue, and offered practical suggestions for physicians. Part two explores the issue further.

Discussion participants were:

**Paul Sanders, M.D.:** A family physician from Cambridge, Minne-

sota, Dr. Sanders is chief executive officer of the MMA and is a member of MMIC's board of directors. He chairs the MMIC Risk Management Committee and is past chair of the Professional Liability Committee of the American Academy of Family Physicians.

**Robert Barnett, M.D.:** Dr. Barnett is a practicing orthopedist with Orthopaedic Foot & Ankle Associates in St. Paul, Minnesota. He has been a member of the MMIC Claims Committee for 10 years.

**John Degnan, Esq.:** Mr. Degnan is a partner in the Minneapolis law firm of Bassford, Heckt, Lockhart,

Truesdell, and Briggs. He practices extensively in the defense of medical and legal malpractice claims and has been actively involved in MMIC risk management activities for several years.

**Jack Kleven:** As MMIC's vice president of claims, Mr. Kleven works closely on risk management issues as they contribute to claim experience. Prior to joining MMIC in 1989, he had extensive experience in malpractice claim handling with the St. Paul Company.

The discussion was moderated by **Elizabeth Lincoln**, MMIC's vice president of risk management.

### *What If the Patient Doesn't Want to Know?*

**Lincoln:** What happens if a patient doesn't want to know about the risks of a procedure? Dr. Barnett, do you frequently run into the situation where you will begin an explanation and the patient will say, "Wait, stop. I don't want to know!"?

**Barnett:** Not frequently, but it does happen. I think patients like that fall into two categories. The one that doesn't bother me is the patient who says, "I've known you for years; I have complete confidence in you, and I don't want to know everything that can go wrong." I know that that patient and I have a good rapport and that, eventually, he will allow me to discuss the most important factors.

The more worrisome patient is the one who absolutely shuts off his listening: "I don't want to hear about it; it's bad news, and bad news and I don't get along, so don't tell me." Since I'm only doing elective surgery now, I back off those patients. I tell

them, "You don't want to hear—I don't want to work." I'm old enough that I can do that. But the 35-year-old physician who is just building a practice probably doesn't have that luxury.

**Sanders:** That patient is a problem patient. He does not want a relationship with you. He merely wants you to do a technical procedure. He probably doesn't want to accept any responsibility for his own medical care, and he probably is going to be extremely difficult to deal with if a complication does occur. I am very concerned about a patient who doesn't want a relationship of open communication with me and who doesn't want to know that there are risks in medical care.

**Lincoln:** Those points address the patient who doesn't want to hear about the possibility of a less-than-perfect medical outcome. What about the physician who simply doesn't want to talk to the patient about the risks and alternatives to a medical procedure? Mr. Degnan, would you

be able to defend a physician on an informed consent claim if he or she had simply said, "There are some risks to the procedure. Do you really want to know what they are?" and the patient said no, and that was the end of it?

**Degnan:** If it ended there, probably not. A physician should go further in attempting to explain to the patient that there are always risks involved in medical treatment and that there is no guarantee of a perfect result. As Dr. Sanders mentioned, if a patient does not have enough rapport with the physician to allow the physician to explain the risks of treatment, that patient may very well be the one who is likely to file a lawsuit if something goes wrong. The physician needs to stress to the patient the importance of the informed consent discussion and make serious efforts to make sure that the patient is adequately informed about the proposed treatment.

**Kleven:** The example you gave, where a physician simply says, "There are



risks. Do you want to know what they are?" would be very difficult to defend. The physician should be able to show that honest attempts were made to talk with the patient and advise him of the importance of knowing about the risks of the procedure. There has to be an indication that there was opportunity for some give-and-take, not that the physician basically cut off any discussion by the way he or she presented the issue to the patient.

**Lincoln:** Physicians must be careful not to make decisions for their patients and assume that a patient doesn't want to know about the risks or alternatives to a procedure. Frequently, I hear physicians express the concern that patients will refuse necessary medical treatment if they are informed about the possible complications. Actually, the situation is just the opposite. Studies have indicated that patients are more likely to refuse medical care if they feel they have not been adequately informed about the treatment.

**Kleven:** Of course, there will be some situations where the patient adamantly refuses to participate in an informed consent discussion but the physician determines that it is medically advisable to proceed with treatment anyway. In those cases, it is critical that the physician document attempts to advise the patient and indicate clearly that the patient refused to participate in the discussion yet still gave consent to the procedure.

### *Who Should Obtain the Informed Consent?*

**Lincoln:** Whose responsibility is it to obtain a patient's informed consent for treatment?

**Degnan:** This is an issue doctors frequently misunderstand. It's the *doctor's* role to obtain the patient's informed consent. The hospital is required, of course, to have a written consent or authorization form, and the nurse can obtain the patient's signature on that form. However, the physician should not delegate the responsibility of obtaining the patient's informed consent.

**Sanders:** If more than one physician is involved in a patient's treatment, each physician should be responsible for obtaining the patient's informed consent for that portion of the treatment or those procedures he or she is handling. I think there is a misconception that one physician can obtain informed consent from a patient on behalf of another physician. Frequently, the assumption is that a family physician can obtain consent

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"Informed consent is  
not complicated;  
it is a common-sense  
approach  
to medicine."

—Jack Kleven

for a surgical procedure that will be done by someone else. Can I, as a family physician, obtain the informed consent of a patient for surgery to be done by my orthopedic partner?

**Degnan:** Technically, I suppose it's possible, if you go over all the significant risks and the patient agrees to the procedure in light of your discussion. However, there's a great deal of risk in obtaining informed consent that way because what you, as a family physician, regard as a significant risk may be different from what the orthopedic surgeon knows the risk to be. It's definitely the best practice for the physician or surgeon who is performing a procedure to obtain the patient's informed consent for that procedure.

**Sanders:** It strikes me that a plaintiff's attorney could quite quickly prove that, as a family physician, it is not reasonable for me to expect to know all of the possible significant complications. It would seem to be quite easy to destroy my defense that I was able to obtain a truly informed consent on behalf of the surgeon.

**Degnan:** And, of course, there's always the possibility that, by cross-

examining both of you, the plaintiff's attorney might come up with two very different ideas about what the significant risks are.

**Barnett:** This issue raises another facet of the problem with anesthesia we discussed earlier (see part one of this discussion, *Minnesota Medicine*, October 1990). As I mentioned, I don't believe anesthesiologists routinely participate in informed consent discussions with their patients. I think they frequently expect the surgeons to talk about the risks of anesthesia. As a surgeon, I am not always in the best position to assess the level of risk for a particular patient.

**Degnan:** I definitely agree. I have always urged that anesthesiologists conduct separate, direct discussions with patients about the risks of anesthesia. The anesthesiologist is more able to say what the risks are in any given case more specifically than a surgeon.

**Barnett:** Anesthesiologists are definitely hampered by the tight time frames and environment in which they work. However, I agree that they have to become better at the informed consent process for their own protection, as well as to take the responsibility off the surgeon, where it doesn't really belong.

**Lincoln:** I know that in the past many physicians believed they could delegate the responsibility of obtaining the patient's informed consent to a nurse or other office assistant. Having now heard that the responsibility should not be delegated, is there any role that allied health providers can play in assisting physicians in obtaining informed consent?

**Sanders:** Nurses and other assistants can help physicians educate the patient about background information and the basic elements of a procedure. They can conduct valuable discussions about anatomy, general procedures, and other issues to lay the groundwork for an informed consent discussion. They can talk to the patient after the informed consent discussion with the physician to make sure the patient understood the discussion and that all his questions

were answered. They can definitely bolster the physician's educational efforts, but their efforts should not be a substitute for the physician's own discussion with the patient.

### *When Should the Informed Consent Discussion Be Held?*

**Lincoln:** Is there a best time for physicians to have the informed consent discussion with a patient?

**Kleven:** For major procedures done in the office, the discussion should be held long enough before the procedure to allow the patient time to consider carefully the information the physician gives him and to ask all his questions. This will probably be at the visit before the procedure is performed. In other cases, the decision to perform the procedure and the actual performance of it may occur in the same visit. Obviously, in those cases, the discussion will have to take place just before the procedure. However, patients should never be made to feel as if they're being rushed into giving consent.

**Barnett:** For hospital surgeries, I think the discussion should take place in the office whenever possible. Patients tend to be flustered and nervous when they are about to go into surgery. When you start trying to say, "This is what we're going to do and these are the risks and hazards," they seem to go blank. They aren't really paying attention to what you are saying at that point and certainly don't remember it later. The office setting is more relaxed.

**Sanders:** I agree. Too many physicians attempt to obtain the patient's informed consent immediately before surgery. You certainly can't conduct an effective discussion when you're leaning over a patient's bed in the pre-anesthetic area, 15 minutes before the patient is wheeled down to surgery. We can't expect patients to become educated and give a truly informed consent if their doctors talk to them only after they've received their preop medication and the family members are waiting to say goodbye before surgery.

**Degnan:** Whenever possible, obtain-

ing informed consent in the office is the best practice. From a defense standpoint, I think it's more persuasive to a jury because it shows that the physician took the time to talk to the patient and gave him an opportunity to ask questions. If the informed consent is obtained in the hospital, too often the process comes across as being rushed and uncaring.

When the discussion must be held in the hospital, it should be done long enough before the procedure to allow for the best possible exchange of information and questions. Certainly, it should not be held immediately before the procedure, when the patient has already been premedicated or feels like it's too late to back out.

### *How Should Informed Consent Be Documented?*

**Lincoln:** Frequently, physicians fail to document the fact that the informed consent discussion occurred—even physicians who do an excellent job of explaining procedures to their patients and have very educational informed consent discussions.

**Barnett:** Most of the problems we've seen in our review of informed consent claims at the Midwest Medical Insurance Company involve lack of documentation. The physician claims to have informed the patient about the complication that occurred but made no record of the discussion. The patient sustains an injury and claims the physician never discussed the possibility at all. Without some form of documentation, the physician is left open to credibility battles.

**Kleven:** Dr. Barnett is right. Physicians will rarely testify that they didn't talk with the patient about a procedure. If they did have a discussion, they can make the defense of an informed consent claim much easier by simply documenting it.

Documentation of informed consent can serve other important purposes as well. As I mentioned earlier, documented informed consent can deter plaintiffs' attorneys from pursuing a case. And, in terms of quality of care, the documentation of informed consent lets everyone on the health care team know that the

physician has already discussed the procedure with the patient, and the patient is prepared.

**Lincoln:** I frequently hear the complaint from physicians that "If I documented everything I tell patients, I'd never have time to practice medicine." How much is necessary to document about the informed consent discussion?

**Degnan:** The documentation does not need to be—and *should not be*—extremely detailed. I recommend documenting a general statement that the risks, benefits, and alternatives were discussed, including only a few of the more serious specific items covered, and that the patient consented to the procedure. I do not recommend trying to list all of the risks discussed; that creates the potential problem of omitting the one complication that eventually occurs. We've been very successful in defending informed consent claims with brief, general documentation of the informed consent discussion.

**Kleven:** The short list of the more serious, specific risks should be phrased in such a way to indicate that it is not exclusive. For example: "Patient was informed of the significant risks of the procedure, including such risks as death and paralysis." That shows that the discussion was broader than the documentation and also allows us to defend a claim on the theory that, if the patient consented to the procedure after being informed of the possible serious risks, he certainly would not have refused the procedure merely because of a more minor complication that actually occurred.

**Degnan:** As mentioned earlier, if a patient refuses to participate in an informed consent discussion or refuses a recommended procedure, that, too, should be carefully documented.

**Lincoln:** Where should the documentation be done?

**Degnan:** I prefer to see informed consent documented directly in the office chart. If a physician decides a procedure is necessary after the patient is already hospitalized, I like to see the documentation in the progress note.



**Lincoln:** What about the consent or authorization forms hospitals use that include statements to the effect that "the physician has advised me of the risks of the procedure"? Are those adequate documentation?

**Degnan:** They may be helpful for the hospitals that have to show evidence of informed consent in the record to satisfy JCAHO requirements. But I

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"Without some form  
of documentation,  
the physician is left  
open to credibility  
battles."

—Robert Barnett, M.D.

would still prefer to see a physician-written or -dictated note in the office chart or progress note. It's easy for a plaintiff's attorney to argue that standard forms were simply signed by the patient along with all the other admission forms and to question whether the doctor was involved in a discussion with the patient at all.

**Barnett:** That happens frequently. The nurse gets the patient to sign the form whether or not the physician has talked to the patient.

**Degnan:** Many vendors also sell "informed consent forms" that are tailored to various procedures and attempt to spell out the entire informed consent discussion. These forms may be good as educational material, but, again, I prefer to see a note in the chart to show that the physician was directly involved.

**Kleven:** Of course, those types of forms are better than no documentation at all, which is what we have in too many cases!

**Barnett:** Does the patient need to sign the consent documentation?

**Degnan:** The consent, or authorization, to treatment—yes. As for the documentation of *informed* consent, it isn't required.

**Sanders:** Some physicians ask patients to sign the note regarding informed consent in the chart to help the patient remember that the discussion took place and to help impress upon them the importance of the discussion. It's not legally necessary, but it may be helpful in some cases.

**Lincoln:** When should the informed consent discussion be documented?

**Degnan:** Contemporaneously with the discussion. If the discussion is documented at that time, it's easy to show a jury that the physician had no idea a complication was going to occur. He or she had no reason to color the discussion with the patient or to fabricate a discussion. If documentation is done after a complication occurs, it loses all credibility. With a little argument by the plaintiff's counsel, a jury could easily conclude that the significant risks were added to the documentation after the fact.

**Lincoln:** I've worked with a number of physicians who diligently document their informed consent discussions, but they document them in the operative report—after an injury is likely to have already happened.

**Kleven:** Other physicians document their discussions in their discharge summaries.

**Degnan:** Documentation at either of those late dates is going to do the physician very little good. It's as if the physician is saying, "In light of the complications I now know have happened, I will document that I informed the patient of the risk of these complications prior to the procedure." That's not particularly persuasive evidence.

### *How to Talk with the Patient*

**Lincoln:** Have you discovered any particularly effective techniques for educating patients and obtaining informed consent?

**Barnett:** I have discovered one method that helps to get the patient's attention and that works very well for me. Often I've found that the surgeon's goal in a procedure may be quite different from the patient's goal. So, I ask the patient what his goals

are. What does he expect this operation to do for him? I write down what he tells me, and I find it's often quite different from what I'm thinking about. It is a good way to get an interchange going, to develop some rapport, and to open an exchange of ideas. I then attempt to come to a common understanding with the patient. When the patient sees me writing all this down and I tell him, "This is what I'm going to put into the record," I think he remembers our discussion.

**Kleven:** That's an excellent technique because it addresses the broader issue of physician-patient rapport, not just the specific requirement of informed consent. It allows everyone involved to figure out that the doctor is on one wavelength and the patient is on another and find some common ground before problems arise.

**Sanders:** I frequently draw patients a bell-shaped curve to illustrate the whole spectrum of possible outcomes. I tell them, "Some patients are going to be at this point; some are going to be at another point with an even better outcome; and there are some who are going to be way out here with a less-than-perfect outcome, and you may be one of those." Patients seem quickly to understand the graphic approach.

Some physicians dictate their examination and their statement of informed consent in the presence of the patient so that the patient hears the documentation as it is being done. Dictating in the presence of the patient can enhance the level of communication and discussion.

**Degnan:** Although doctors have heard this many times, I want to emphasize that it's too easy for doctors to fall into using medical jargon when they are holding informed consent discussions. You have to keep in mind the necessity for "plainspeak" and make sure you are talking in lay person's terms as much as possible. Rather than talking about a Syme's amputation, for example, talk in terms of taking off a certain portion of the toes or the tissue.

In trying to defend a malpractice claim, it's absolutely critical for us to

be able to show that the physician talked in terms the patient could understand. Even more important, it may well avoid a claim in the first place, because it will minimize the chance of miscommunication.

**Barnett:** Another problem we see in orthopedics is that patients are often away from work or impaired at home for a long period of time. I think there is a tendency for some physicians to say, "You will feel great in two weeks," when, in fact, it's two months or more before patients really start to feel as though they're recovering. We must be careful not to make unrealistic projections of morbidity time. Patients get very upset about this.

**Degnan:** Unreasonable, unfulfilled expectations are frequently what cause patients to file lawsuits.

## Summary

**Lincoln:** We've covered a great deal of ground in this discussion. Can you summarize some of the concepts you feel are most important about informed consent?

**Sanders:** Physicians should not get overly concerned about the legal technicalities of informed consent. Informed consent discussions are really just an extension of the good physician-patient relationship that's a basic element of high-quality medical care.

**Barnett:** We need to focus on developing common goals with our patients. If patients understand that there are risks in medicine and have realistic expectations of what their physicians can do for them, they aren't

going to be surprised and won't be so likely to file a lawsuit if something goes wrong.

**Degnan:** *Documentation!* Keep it simple, but give us something to prove to a jury that you did, in fact, do a good job of informing your patient about treatment.

**Kleven:** Informed consent is not complicated; it is a common-sense approach to medicine. Tell your patients what any reasonable person would want to know and make a simple note about the discussion in the record.

**Sanders:** Remember, the rapport that can be developed through open communication with patients is the best claim prevention technique we've found.

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# A Management Perspective on the Physician Buy-in Process

David C. Cordes, Ph.D.

Adding a "partner" can be confusing and traumatic for physicians in private practice, but it doesn't have to be. This article reviews the general structure and process of adding a "partner"—often referred to as a "buy-in."

The observant reader probably noticed the quotation marks around "partner." Although many physicians think a buy-in is synonymous with adding a partner, this is not quite correct. Actually, the professional association (P.A.) adds a new *shareholder* through the buy-in process. Thus, the buy-in is essentially the purchase of stock in the P.A. However, in most P.A.s, purchasing of stock also involves several other commitments, such as:

- signing a shareholder employment agreement,
- purchasing a percentage of the practice's accounts receivable, and
- participating in the equipment and/or building partnership affiliated with the P.A.

If the practice has equipment and/or building partnerships, the buy-in involves becoming a "partner," in addition to becoming a shareholder.

The legal distinctions between shareholder and partner are important. As a physician shareholder, you own a percentage of the P.A. Assuming equal ownership (which may or may not be the case) and three other shareholders, you own 25 percent of the association. It is the percentage that is important, not whether you own 100 or 2,000 shares. As a "partner" in the building partnership, you have different risks, obligations, and rewards than those of a shareholder.

Choosing to buy into a P.A. and its affiliated partnerships is one of the most important business decisions a physician can make. Usually, the physician has worked for the

practice for at least one year, and the buy-in implies acceptance by his or her peers. Peer acceptance is an integral component of any buy-in. A decision to buy into a group is often compared to a marriage; both re-

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"Choosing to buy into a P.A. is one of the most important business decisions a physician can make."

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quire commitment of two partners, both are legal agreements, both involve finances, and neither should be taken lightly.

A buy-in often involves investing a substantial amount of money. For example: the accounts receivable component of the buy-in could involve paying as much as \$150,000 to the practice.

Buying in also involves some risk. As a shareholder, you are taking the risk for any of the P.A.'s financial and legal obligations. This could mean personally signing for bank loans, leases, and other financial agreements. In addition, each shareholder usually agrees to accept a risk-based compensation formula; that is, the shareholders' compensation is not available until all other bills have been paid. While this may or may not be a major concern in most successful practices, in others, this risk can result in employed physicians receiving greater compensation than the shareholder physicians.

Enhanced physician recruitment

is an often unrecognized benefit of a clear-cut buy-in process. Many recent medical school graduates have received some exposure to the concept of buying in<sup>1</sup> and may ask about it during an interview. Vague and evasive answers can discourage an important prospect. Being clear and concise about the cost, the timing, and the advantages of your group's buy-in arrangements can be crucial to recruiting.

## *The Buy-in Process*

In the first step of the buy-in, the corporation (i.e., the current shareholders) must decide if it wants to offer a "partnership" (shares) to a prospective shareholder (usually a physician employed by the practice). This key step is often made with little or no consideration of such questions as: Has the employed physician had regular, formal performance evaluations? Does he or she fit into the style of the practice? Do we need and want this person as a shareholder in our practice? Does anything about the physician's personality, behavior, or performance evaluations concern the group?

Assuming the chemistry is right between the current shareholders and the physician buying in, the second step requires an examination of the structure of the buy-in.

1. Does the practice have a standard buy-in arrangement?
2. Must the buy-in be identical to previous arrangements?<sup>2</sup>
3. Did the group promise any specifics when the physician was hired?<sup>3</sup>
4. Is the buy-in affordable?
5. Is the building partnership part of the buy-in?

Determining the structure of the buy-in involves coordinating the group's attorneys, accountants,



shareholders, and managers. Each has a significant role to play in the buy-in process.

Once the structure of the buy-in is complete, the shareholder's proposal must be presented to the prospective shareholder. Often, the current shareholders will inform the potential shareholder of their interest. The potential shareholder will then meet with the group's president, attorney, accountant, and administrator. The president describes the group's feelings, discusses any medical issues, and usually relates any relevant buy-in history. The attorney or the manager reviews the legal documents (described below), and the accountant or the manager explains the tax and financial aspects of the buy-in.

A buy-in can be emotional, time-consuming, and complicated. It can be very difficult to get a final commitment and a signed agreement. Despite the difficulties, the process is very important for a small group; the loss of a physician due to frustration or unhappiness with the buy-in process can jeopardize the whole practice. (Negotiations with physician couples can be even more complex and the stakes higher.)

### *The Legal Agreements*

The pragmatic structure of a buy-in involves signing four legal agreements: 1) a stock purchase agreement; 2) a shareholder employment agreement; 3) a deferred compensation agreement (accounts receivable [A/R] buy-in), and 4) a building partnership. Specific issues associated with these agreements are discussed in the next four sections.

#### *Stock purchase agreement*

Essentially, buying in means purchasing stock in the medical corporation. The stock may be purchased from either the corporation or from the current shareholders. Under current capital gains tax laws, there are no tax advantages to either method. Administratively, it is easier to have the corporation sell stock to the physician, so that any financial arrangements are between the corporation and the physician.

A key question at this point is

how many shares (or, more appropriately, what percent of the corporation) will be sold. If, as a general philosophy, the group has equal shareholders, this becomes a simple calculation. However, if, for example, one physician in the group wants to maintain 51 percent control of the shares, the remaining shares will have to be diluted in order to issue new shares.

Once the group has decided how many shares will be sold, the corporation gives the physician a stock certificate in exchange for cash. If the physician cannot afford or is unable to borrow the money to pay for the shares in cash, the corporation may lend the money to the physician and keep the shares as collateral.

Regardless of the exact financial transaction, the corporation and the physician will sign a stock purchase agreement. All shareholders should have signed similar, if not identical, agreements. Five issues dominate stock purchase agreements:

**Determination of purchase price:** The formula for determining the purchase price paid for the stock both in the buy-in and the buy-out are included in the stock purchase agreement. To determine the price of the stock, an accountant must value the practice, since the physician is purchasing a percent of the practice. The process of valuing a practice has been subject to a considerable amount of analysis and discussion.<sup>4,5</sup> One important question is whether the value includes "goodwill,"<sup>6-8</sup> a subjective dollar value assigned to the practice itself, over and above the value of the "hard" assets (e.g., equipment, cash, savings). One major hard asset, the accounts receivable, is usually not included in the purchase price. The A/R is separated from the other assets and is subject to what is typically called a deferred compensation agreement (see below). Other hard assets, like equipment, are difficult to value and must be carefully considered.<sup>9</sup>

**Restrictions on transfer:** Because the stock is in a private corporation, there are restrictions on its transfer. The agreement covers all aspects of encumbrance, pledges, disposing, or transferring the stock. Upon the

stockholder's death or disability, or following termination of the employment agreement, the shares usually must be sold back to the corporation at a price determined by the same formula used in the buy-in.

**Payment upon death or disability:** This section of the agreement spells out how the payment for stock will be made if the stockholder dies or becomes disabled, and it stipulates whether payment will include interest and how fast the interest will be made. The definition of disability can be very important and must be consistent with the other agreements and with the group's disability insurance.

**Payment upon termination of shareholder as employee:** This section is similar to the section on death and disability payments, but the terms and conditions may vary depending on the reason for termination. For example, the terms may be different if the stockholder leaves to join a competing group.

**Inability of group to pay:** This section covers the inability of the association to purchase the shares of a physician who is leaving the group, and it usually makes the shareholders personally liable to do so.

#### *Shareholder employment agreement*

Before purchasing stock, the physician probably had a formal employment agreement. This agreement describes duties, compensation, benefits, termination, etc. As part of a buy-in, the physician usually will be required to sign a new employment agreement that is identical to the other shareholders' agreements. Shareholder employment agreements are similar in many respects to the "employee" employment agreements. However, the inherent risks and rewards are quite different in the two types of agreements.

**Risks:** When a physician signs an employee employment agreement he or she can be reasonably assured of receiving compensation and other benefits. This is not necessarily true for a shareholder. Most shareholders' compensation is directly dependent on the group's profitability. Thus, shareholder compensation

varies depending on the corporation's financial situation. If collections are bad for a few months, compensation may drop. Bad decisions on leases, equipment purchases, health plan participation, employee selections, etc., can dramatically reduce shareholder compensation.

It is important for the group to ensure that the shareholder compensation formula is understandable. Given the complexities of many formulas, it is imperative that the individual buying in be given an estimate of earnings. Computer models are needed to provide these estimates. Because the accounts receivable portion of the buy-in often takes five years, compensation may have to be estimated (simulated) for five years of the buy-in. Failure to provide these projections in a manner understandable to the physician can result in the practice losing a potentially valuable "partner."

The requirement of most lending institutions that shareholders become personally liable for practice loans is another risk that can jeopardize a buy-in. This risk may not be of major concern to practices with as many as 10 current shareholders, but it can be a significant issue in smaller groups, particularly when there is just one current shareholder. If the number of shareholders is small, the new shareholder may be at significant risk for the disability or death of one of his or her "partners."

Many shareholder agreements include a non-compete clause with significant financial penalties for violating these provisions. Concern about these provisions also can jeopardize the buy-in process.

**Rewards:** While shareholder employment agreements clearly carry risks, they also offer rewards not available to employed physicians. Typically, the compensation formula has significant financial advantages for the shareholder. The shareholder usually has considerably better benefits than the employed physicians. Additionally, the shareholder usually has the ability to maximize after-tax income through the corporation. In most groups, shareholders are elected to the board of directors and participate in the management

of the practice. In the case of disability, shareholders may receive interim assistance (first 90 days) from the corporation that is not provided to employed physicians.

### *Deferred compensation agreement*

The third component of a buy-in, and often the most expensive, involves purchasing a share of the accounts receivable (A/R). Typically, physicians will experience an average three-to-four-month lag in payment for their services. If a physician bills \$30,000 to \$60,000 per month, this amounts to a \$90,000 to \$240,000 accounts receivable per physician. Even with the relatively low collection percentages in Minnesota, this represents a significant amount of money for the physician to purchase.

The formal documentation of the A/R buy-in is called a deferred compensation agreement. The peculiar title results from the concept that the physician buying in is actually deferring income until he or she leaves the practice. This deferred income is divided up among the current shareholders to pay them back for funding the accounts receivable of the employed physician. The amount deferred is equal to the A/R at the time the agreement was executed.

**Valuing accounts receivable:** All deferred compensation agreements include a procedure for valuing the A/R. In Minnesota, with its high percentage of managed care plans, this valuation can be very complex. Bad debt and reserves further complicate the situation. How the A/R will be handled at the collection agency must be clearly addressed in the buy-in agreement.

**Interest:** Whether interest will be charged on the A/R portion of the buy-in also must be addressed in the agreement. I have found that most groups are not charging interest, which makes buying the A/R somewhat easier. In many cases, the payments are deducted from the new shareholder's compensation, thus allowing the payments to be made with before-tax dollars.

**The payout:** The agreement must address under what terms and conditions the deferred compensation will

be paid. Death, disability, and employment termination are the usual conditions. The actual terms may vary by condition. If a partner dies, the payout to the estate is made quickly, usually with interest, over a one-to-three-year period.

The payout becomes more complicated in cases of disability. Is the onset date of the disability clear? Is the disability full or partial? Does it make any difference? Some groups allow the deferred compensation to be paid immediately upon an actual or suspected disability; others require payment, or at least confirmation of disability, by the disability insurance carrier. What happens if the share-

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holder returns from a disability but has received deferred compensation? Can it be repaid? In cash? By working? Disability considerations must be thoroughly discussed and the agreements well documented in the buy-in agreement, which may be more clear if it includes specific financial examples.

Paying out deferred compensation after employment termination is also complicated. Was the termination voluntary or involuntary? Friendly or unfriendly? Is the departing physician going to compete with the corporation? The deferred compensation agreement is often used to protect the corporation from financing the departing physician's new practice. For example, if the departing physician establishes a practice within the non-compete area, the deferred compensation payout may be either reduced or eliminated or perhaps paid after a one-year wait. Again, this section of the buy-in agreement requires careful discussion.

*Continued*



**Payout caps:** Purchasing the A/R is costly for the individual who is buying in. Likewise, it is a major cash drain on the corporation that is buying out a physician. This financial strain is compounded if two or more physicians leave together or their buy-outs overlap. Therefore, it is important that the agreement include provisions for limiting the total dollars paid out each month by the corporation. Although not addressed in the agreements, a decision faced by many groups is whether to fund the buy-out with insurance. This topic is treated elsewhere.<sup>10-12</sup>

**Payouts and taxes:** Since the federal government may consider the deferred compensation as "wages," many accountants and attorneys argue that the dollars are subject to employment taxes (FICA), and that, consequently, the corporation is responsible for paying the employer half of the FICA. Other accountants believe that FICA need not be deducted. Careful discussion of this issue with an accountant and attorney is necessary.<sup>13-15</sup>

### Partnership agreements

After purchasing stock, accepting a shareholder employment agreement, and agreeing to a deferred compensation plan, you have completed the buy-in. However, in most physician-owned corporations, one or more physician shareholders own office equipment and space. For purposes of illustration, I will use a medical building with the group as its sole tenant. (Often the building is owned by one or more of the physicians through a building partnership.) The P.A.'s rent makes the building valuable, and the group must decide whether or not to require new shareholders to also join the building partnership. If the P.A. shareholders and the building partnership have the same share of ownership (e.g., 25 percent shareholders, 25 percent partners), the partnership is called a "mirror-image" partnership. With a mirror-image building partnership, the lease arrangement between the P.A. and the partnership can optimally benefit the equal shareholders/partners, and divisive issues about what is "fair market value" should

not arise among partners with this type of arrangement. However, several other issues arise in mirror-image building partnerships:

**Can the new shareholder afford to be a partner?** Given that the new shareholder is purchasing stock, funding his or her deferred compensation, and earning compensation on a risk basis, is it possible for him or her to finance the cost of a building partnership as well? This situation often leads to a what is called a "zero-priced buy-in,"<sup>16</sup> which allows new shareholders to be partners at no capital cost.

**What is the building worth?** Appraising a single-purpose, single-tenant building is difficult, and the partnership agreement must address the method of appraisal.

**How will the money be paid out?** Getting out of a building partnership can be difficult. The partner's equity is in the building, which is not a liquid asset. Usually, the building must be refinanced in order for a partner who is leaving to receive his or her cash.

### Conclusion

Buying into a practice can open doors to new opportunities—or present unexpected pitfalls. If you are considering a future buy-in, it's a good idea to explore your options and do your homework. The Medical Group Managers Association has a lengthy bibliography of articles on buying and selling a practice and a "search summary packet" on buying, selling, and valuing a practice.<sup>17,18</sup> And if you already are a shareholder/partner, a review of your current documents might be wise.

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*David C. Cordes, Ph.D., is vice president of Management Services at StrategiCare, Inc., which provides management and computer services from its offices in the Twin Cities, Milwaukee, Chicago, and Des Moines.*

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# An Office of Rural Health

## *A Focal Point for Rural Health Concerns*

*Richard B. Tompkins, M.D.*

Would an office of rural health relieve some of the problems plaguing rural Minnesota? It's a concept worth pursuing. Minnesota is one of the few states outside of the Northeast that does not have an office of rural health.

The need to address the growing crisis in rural Minnesota is clear. A 1989 survey by the Minnesota Hospital Association and the MMA revealed a shortage of 200 physicians in the rural areas of our state. Seventy-eight percent of rural Minnesota hospitals reported that they were trying to recruit health care providers. For some hospitals, the search had gone on for two years and cost upwards of \$50,000.

Recently, momentum has been building to create a state organization that would help with physician recruitment and serve as a focal point for rural health concerns. At the MMA Annual Meeting in May, the House of Delegates voted to support the concept of an office of rural health. In September, the MMA Board of Trustees voted to support "further pursuing the concept of establishing an office of rural health that is not administered by state government, that is supported in part by contributions of health-related organizations, and that is committed to assisting with physician recruitment to under-served areas."

An office of rural health could provide such services as data gathering, community assistance, planning, and lobbying. The idea would be for it to perform services not currently offered by other organizations and to augment—not replace—some services already in place.

Certainly, these are worthwhile objectives, but before we give the proposal our final and wholehearted endorsement, we need to determine



"An office of rural health offers one way to broaden our base of support and increase our lobbying power on rural issues."

the answers to some key questions:

- How would the proposed office be funded?
- What would be its mission?
- How would it be structured and administered?
- Where would it be located?

The Rural Health Coalition, a broad-based group of organizations, including the MMA and the Joint MMA/MAFP Rural Health Task Force, chaired by Ray Christensen, M.D., Moose Lake, has been examining some of these issues. The coalition established a working group to discuss the goals and structure of the proposed rural health office. In September, Dr. Christensen forwarded the working group's recommendations to the MMA Board of Trustees. The working group recommended that 1) the office of rural health serve as an advocate for rural health care, assist with research and policy development, and aid in physician recruit-

ment; and 2) the office be funded by the major participating organizations such as the Minnesota Medical Association, the Minnesota Academy of Family Physicians, the Minnesota Hospital Association, the University of Minnesota-Duluth (UMD), the Northern Lakes Health Care Consortium, as well as by outside foundation money. The contributing organizations would set the focus, direction, and limits of the proposed office but would allow it autonomy within those limits.

While several possible structures have been suggested, recent discussions have focused on the establishment of an office of rural health at the University of Minnesota-Duluth. Under an institute-like structure, the organization would be directed by a board comprising representatives of various health care organizations, a representative of a senior group, a rural physician, a rural hospital administrator, a rural consumer, and a UMD ex officio member.

The proposed office of rural health faces a formidable task. The sole backing of the government or of health care groups will not be enough to ensure its success. Multi-faceted support will be needed to solve the problems of access to rural health care. An office of rural health offers one way to broaden our base of support and increase our lobbying power on rural issues. Proponents of such an organization believe it may attract federal funds designated for rural areas, and they argue that the Minnesota Legislature may be more inclined to fund a state organization than a more loosely knit coalition.

In the meantime, we are pleased that a number of our rural health initiatives were so well received by the 1990 Legislature, which:

- Increased Medical Assistance

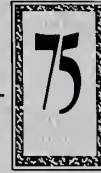


reimbursement for obstetric and pediatric services by 15 percent.

- Created a loan forgiveness program for medical students who practice in a rural area for a minimum of three years.

- Authorized an internship program for high school students interested in medical careers. (Although this program was originally included in the Omnibus Rural Health Bill, introduced by Rep. Roger Cooper [DFL-Bird Island], the internships are available to high school students in both urban and rural areas throughout the state. Students are eligible the summer between their junior and senior years in high school.)

The MMA will continue to explore the concept of an office of rural health. At the same time, we will make every effort to get at the root of our health care access problems—the inadequate reimbursement rates for Medicare and Medical Assistance. Our goal is to preserve access to health care for all Minnesotans—in both rural and urban areas. MM



## Duluth, Minnesota

**T**he Duluth Clinic, a 170-physician regional health care system, has opportunities for physicians in the following areas:

- |                     |                                        |
|---------------------|----------------------------------------|
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| ■ Nephrology        | ■ Psychiatry                           |
| ■ Neurology         | ■ Pulmonology                          |
| ■ OB/GYN            | ■ Rheumatology                         |

### For more information, contact:

|                                                      |    |                                    |
|------------------------------------------------------|----|------------------------------------|
| Michael J. Griffin                                   | or | Timothy D. Zager, M.D.             |
| Administrative Coordinator/<br>Physician Recruitment |    | Chairman/<br>Physician Recruitment |

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## Chief of Professional Services Family Practice/Internal Medicine

### Coon Rapids/Inver Grove Heights

Group Health, Inc. is seeking BC/BE family physicians or general internists who would be interested in an important leadership role in the clinic while maintaining his/her clinical practice.

In the fall of 1991, we will be opening two new clinics: Coon Rapids area and Inver Grove Heights. We are looking for one physician at each of these sites who wishes to become involved in a physician leadership position. This position will make decisions regarding the building of a new practice from the ground floor up without the financial obligations normally involved in starting a new practice.

The chief of professional services is the physician manager of the clinic and is involved with the day-to-day operations and staffing decisions while maintaining a clinical practice. The chief will enjoy administrative support from a clinic manager and the Group Health administrative and physician management team.

If this challenging opportunity appeals to you, please contact: **Judy Meath, Senior Director, Physician Services at 623-8444 for more information; or send curriculum vitae to Physician Services, 2829 University Avenue S.E., Minneapolis, MN 55414.**

## *People and Places Making Medical News*

### **People**

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#### **National Red Cross Post**

Ted Eastlund, M.D., medical director of Transplantation Services at St. Paul Red Cross, has been named medical officer of Tissue Services for the American Red Cross. In this new position, Eastlund will provide medical and technical leadership for approximately 25 American Red Cross Tissue Services centers nationwide. He will also be the lead medical adviser on all American Red Cross quality assurance efforts and assist with research on the safety, efficacy, and preservation of human tissues for transplantation.

Red Cross tissue banks procure, process, and distribute human tissues such as bone, skin, heart valves, veins, middle ears, cartilage, tendons, and ligaments for use by physicians.

Eastlund will continue as medical director of the St. Paul's Transplantation Services and as assistant professor in the Department of Laboratory Medicine and Pathology at the University of Minnesota Medical School.

#### **United HealthCare Director**

United HealthCare Corporation has named Gordon Mosser, M.D., its corporate medical director. Mosser will assist in utilization management, quality assurance, benefits interpretation, protocol development, and other medical management support for United's network of nine specialty businesses and 18 health plans nationwide, among which are Share Health Plan and Physicians Health Plan in Minnesota.

Mosser has 15 years of experi-

ence in medical management. Most recently, he served as associate medical director of the Rhode Island Group Health Association. He has also served as associate medical director of Partners National Health Plans and, while director of quality assurance at Share Health Plan in Minnesota, developed one of the country's earliest health care quality assurance programs.

#### **MCHA Head**

Edward J. Dirkswager, Jr., senior vice president and chief administrative officer of Minneapolis-based Group Health, Inc., has been named president of the Minnesota Comprehensive Health Association, which provides medical coverage for Minnesota residents who are unable to obtain standard health insurance.

Dirkswager has been with Group Health since 1983. Before that, he was commissioner of the Minnesota Department of Public Welfare (now the Department of Human Services).

#### **Radiology Accolades**

Leonard H. Levitan, M.D., of St. Paul, James D. MacGibbon, M.D., of Edina, and Spencer L. Robnik, M.D., of New London were named as fellows of the American College of Radiology at its annual meeting in Nashville, Tennessee, in September. They were among 131 new fellows selected by the college's Board of Chancellors. Fellowships in the American College of Radiology are awarded for significant scientific or clinical research in radiology or for significant contributions to its literature. Criteria for selection also include performance of outstanding service as a teacher of radiology, service to organized medicine, and an outstanding reputation among colleagues and the local community.

#### **NIH Head**

Cleveland cardiologist Bernadine Healy, M.D., has been chosen by Health and Human Services Secretary Louis Sullivan, M.D., to be the new director of the National Institutes of Health. Healy is the research director of the Cleveland Clinic Foundation and a past president of both the American Heart Association and the American Federation for Clinical Research. She was an assistant director of the White House's Office of Science and Technology Policy during the Reagan administration. Her appointment must be approved by President Bush and confirmed by the Senate.

The National Institutes of Health oversee an annual budget of \$7 billion, employ 13,000, and award more than 23,000 grants to medical researchers each year.

### **Places**

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#### **Methodist, Park Nicollet Ties**

Methodist Hospital and Park Nicollet Medical Center, both in St. Louis Park, Minnesota, are discussing a closer working relationship, hospital and medical center officials announced in September. That relationship may or may not be a merger, said Terry Finzen, Methodist's president. Methodist, with 425 beds, is one of the Twin Cities' busiest hospitals, and the 300-physician Park Nicollet is Minnesota's second-largest clinic.

Finzen said consultants are exploring avenues of closer collaboration to avoid competition and duplication of services. About 60 percent to 65 percent of Methodist's patients are treated by Park Nicollet physicians.



### HMO's Prevention Plan

MedCenters Health Plan of Minneapolis in September announced a 10-year plan of preventive medicine designed to improve the health of Twin Cities residents, beginning with the HMO's own 265,000 members. MedCenters will spend more than \$10 million a year on research, member education, and products.

The initiative targets hypertension, breast cancer, depression, and complications potentially avoided by good prenatal care. MedCenters, in cooperation with Park Nicollet Medical Foundation, has identified these conditions as some of the HMO's most prevalent or costly health problems that can be curbed through better prevention efforts. These four problems could be affecting more than half its members, MedCenters officials said.

### Hospital Personnel Cuts

Children's Hospital in St. Paul in September laid off or reduced the hours of 16 people. Hospital officials said a \$1.3 million deficit from May to July—compared with \$12 million in revenues for those three months—led to the layoffs. Two of those laid off were vice presidents. Children's Hospital President Brock Nelson said the cutbacks are part of a program designed to trim \$200,000 from the hospital's monthly budget.

Nelson cited decreased length of patient stay as the major factor in the hospital's financial woes. The average length of stay fell from 5.1 days to 4.6 days through the first seven months of 1990.

### 'U' Bioethics Grant

The University of Minnesota's Center for Biomedical Ethics in September received the largest bioethics research grant ever awarded. The federal Agency for Health Care Policy and Research awarded \$1.6 million to be divided equally with the University of

Pittsburgh Center for Medical Ethics to fund a study to explore the severe shortage of cadaver organs for transplantation. The study, which will involve 11 Twin Cities hospitals and 11 Pittsburgh-area hospitals, will explore factors involved in organ tissue procurement, such as whether or not potential donors are being identified and whether or not they actually donate.

### Insidious Incinerator?

Minneapolis allergist Richard Morris, M.D., at least 13 other Minnesota physicians, and eight other medical personnel who work in the Medical Arts Building in downtown Minneapolis signed a petition saying they are "very concerned" about the health threat of the Hennepin County garbage incinerator adjacent to downtown Minneapolis. The petitioners in September said they are particularly concerned about the 82 pollution permit violations that have occurred at the incinerator since it began operating a year ago through mid-June. These violations were for exceeding emission limits of sulfur dioxide, carbon monoxide, nitrogen oxides, and particles, and, according to the petition, pose health threats to people with respiratory problems.

However, Lou Chamberlain, head of the Minnesota Pollution Control Agency's incinerator unit, pointed out that most of those violations occurred in the first months of incinerator operation. He said only about one violation a month has occurred since March.

### Deaconess Building Conversion

Minneapolis officials announced in September that the city plans to buy the vacant Fairview Deaconess Hospital site, raze much of the building, and renovate part of it for an agency to provide social services for American Indian women and children. The city offered \$586,000 for the site, which covers more than two city blocks. The former Deaconess board of directors had

originally sought \$700,000 for the property.

### Award for Cardiovascular Research

The University of Minnesota, Duluth (UMD) School of Medicine has received a Burroughs Wellcome Award for progress in cardiovascular research, the school announced in October. The award, given annually to only a few institutions believed to be engaged in uniquely promising scientific research, is the first granted to UMD.

UMD was selected for the award for its Physiology Department's work in biochemical signaling systems that regulate the contraction of cardiac and smooth muscles. The award was gained by the concerted efforts of Joseph Di Salvo, Ph.D., Lorentz E. Wittmers, Jr., M.D., and Gary R. Marchand, Ph.D.

### UMD Indian Endowment

The Bruce W. and Florence J. Cooper Endowment Scholarship Fund to assist Chippewa Indians in pursuing careers in health or medically related fields was recently established at the University of Minnesota, Duluth (UMD). Florence Cooper, 68, who was born in Grand Marais, Minnesota, and grew up in Duluth, and her husband, Bruce, have bequeathed \$500,000 to UMD to encourage promising Chippewa students to return services to the American Indian community by pursuing professional careers in health care and by serving as examples to the students who follow them.

### Socioeconomics

#### Mental Health Care Quality

Although Minnesota improved its mental health system rating to a 10-way tie for 16th in comparison with other states, a new national

survey lambasted Minnesota and all states for what it deemed disastrous care for people with serious mental illness. The survey, released in September by the Public Citizen Research Group and the National Alliance for the Mentally Ill, said Minnesota was "going nowhere," despite a bill passed by the 1987 Minnesota Legislature to improve mental health care statewide.

Minnesota's ranking increased from 37th in 1986 and 32nd in 1988. Although Jerri Sudderth, mental health division director in the Minnesota Department of Human Services, lauded the jump in rank, the groups sponsoring the survey were critical of the state's system. They criticized the state for spending money expanding the state hospitals instead of furthering community mental health programs.

### **Nursing Home Worries**

A dramatic increase in the number of deaths caused by abuse or neglect in Minnesota nursing homes prompted a state task force in September to recommend better supervision and staffing at the state's nursing homes. However, the Nursing Home Mortality Review Task Force, which is primarily made up of nursing home professionals, stopped short of calling for more government supervision.

The number of deaths confirmed to be caused by neglect more than tripled from 11 to 35 a year during the past two years, and the number of suspected cases of fatal neglect shot up from 15 to 81 during the same period.

The year-old task force, which was appointed by Minnesota Commissioner of Health Sister Mary Madonna Ashton and submitted its full report to her last month, called for more training and support of nursing directors—a third of whom stay on the job less than a year. It also called for, among other things, more study of

the high turnover among nursing assistants, who provide 70 percent of nursing home residents' care.

### **A Break for Small Businesses**

Blue Cross and Blue Shield of Minnesota in September announced a controversial plan to give small businesses a break in insuring their employees' health. The plan would not require businesses with four through 49 employees to provide insurance coverage for mental health care, prescription drugs, chiropractic care, and chemical dependency treatment. Patient advocates, such as the Mental Health Association of Minnesota, decried the decision, saying it is unfair to provide selective coverage. Blue Cross and Blue Shield submitted its proposal to the Minnesota Health Care Access Commission, which was established by the 1989 Legislature and is studying ways to provide coverage to Minnesota's uninsured.

Later in September, the access commission revealed its plan to make insurance less expensive for small businesses and people privately insured—those who struggle most with high insurance premiums. Its proposal for small-group and individual insurance buyers is to have insurers charge a "community rate" for all individuals and families based on each insurer's experience throughout the community. To buffer against catastrophic claims, all insurers would contribute proportionately to a community-wide fund that would cover medical costs above a certain level, such as \$30,000.

Although coverage of small groups and individuals is a key proposal in its recommendations for health care coverage for all Minnesotans, the commission will report its complete recommendations this month.

### **Insuring Employees**

In a related finding, results of a Health Care Access Commission survey released in September showed that, although 41 percent of Minnesota employers provide no health insurance to their employees, almost two-thirds are willing to do so. The survey of 1,125 employers found that two-thirds of the companies that don't provide insurance consist of four or fewer people. Of the firms that do not offer insurance, 62 percent said they would be willing to contribute \$26 to \$100 a month for each employee's health insurance. Average single coverage is \$120 in Minnesota, and average family coverage is \$270, according to the survey.

The commission's survey found that 90 percent of businesses employing 30 to 49 workers offer health insurance.

### **National Health Care Coverage**

In further insurance news, a national bipartisan commission in September proposed a \$70 billion plan to guarantee access to health care for all Americans. In addition to overhauling Medicaid and the health insurance system, the report outlines potential tax increases to pay for the coverage and provides other details for providing health insurance to all citizens. Members of the U.S. Bipartisan Commission on Comprehensive Health Care said it is unlikely that Congress would debate their recommendation this year.

### **Twice Canada's Price**

It would take a bargain-basement 60-percent-off sale for physicians' fees in the United States to reach Canada's level, according to a study by Stanford University economist Victor Fuchs and his colleague James Hahn published in the September 27 *New England Journal of Medicine*. Despite the fee difference, the study found, U.S. physicians earn only about one-third more than their Canadian counterparts, because physicians



north of the border see more patients.

Besides U.S. physicians' fees being 2.4 times higher than in Canada, the study found that, compared with Canada, U.S. doctors provide fewer services, U.S. fees for surgery and other high-tech procedures are three times higher, the U.S. has fewer doctors per capita and a higher proportion of specialists, and U.S. doctors pay double in overhead expenses.

### Malpractice Rates Drop

For the first time in more than a decade, malpractice insurance premiums are dropping in many states. The St. Paul Fire & Marine Insurance Company, for example, which is the nation's largest malpractice insurer, is reducing premiums in a range from 6 percent to 25 percent in 22 of the 42 states in which it has policies. Experts attribute the drop to preventive measures by physicians—such as developing standards of patient care—to avoid malpractice suits.

## Innovations

### CTS Procedure

David H. Palmer, M.D., and J. Craig Paulson, M.D., of St. Croix Orthopaedics, P.A., in Stillwater, Minnesota, are among the first orthopedic surgeons in the United States specifically trained to use the Agee Inside Job brand carpal tunnel release system. This new type of surgery, done through a small incision in the wrist, allows patients with carpal tunnel syndrome to return to work in about half the time of those who undergo conventional open carpal tunnel surgery.

The device is being marketed by the Orthopedic Products Division of 3M Company. Results of a 3M clinical study indicate that in addition to more rapid healing and less discomfort after surgery, the Agee Inside Job system also offers improved cosmetic results. With

the traditional open-hand surgery, closing the incision requires several sutures, and scarring can be obvious. With the new procedure, scarring is minimal and easily concealed in the crease of the wrist, according to 3M researchers.

Palmer reports results similar to 3M's.

### Expanded ddC Use

Hoffmann-La Roche has announced plans to further expand the availability of its anti-HIV drug ddC (dideoxycytidine) to patients with AIDS and advanced AIDS-related complex (ARC) in the United States. The expanded program will allow physicians to treat patients with ddC after AZT intolerance develops or treatment fails.

In June of this year, Roche initiated a program to expand the access of ddC beyond its use in controlled clinical trials for patients with AIDS and advanced ARC. The protocol required that patients be intolerant to or have failed AZT (zidovudine) and also have intolerance to the experimental drug ddi (dideoxyinosine). At the time the first ddC expanded access program was initiated, Roche announced that it would widen the availability of its antiviral drug when the company's medical professionals were satisfied that adequate safety information had been obtained from this study and other trials in the clinical research program.

## Medical Research

### Low Cholesterol, Healthy Heart

University of Minnesota surgeon Henry Buchwald, M.D., reported in the October 4 *New England Journal of Medicine* that lowering cholesterol decreases the risk of second heart attacks and coronary disease. His 17-year study of 838 patients who had already had one heart attack also showed that a partial ileal bypass, which bypasses the cholesterol-absorbing lower third of the small intestine, is the most effective known means of

lowering cholesterol levels.

In Buchwald's study, all patients were placed on a low-cholesterol diet, but 421 also had partial ileal bypass. There were just 24 deaths among the 281 participants who had the surgery and whose left ventricles remained healthy after their first heart attack; 39 of 292 nonsurgical patients with healthy ventricles died. The 36 percent difference in death rates was statistically significant. The surgery group also reported fewer second heart attacks (59, compared with 96 in the nonsurgery group), coronary bypasses (52, compared with 137), and balloon angioplasties (15, compared with 33).

The study, financed by the federal government and known as the Program on the Surgical Control of Hyperlipidemias, or POSCH, involved researchers from Minnesota, the University of Arkansas, the University of Southern California, and Lankenau Hospital and Research Center in Philadelphia.

### Artery-blocking Virus

Researchers at the University of Minnesota report that coronary blockages may be caused by long-latent herpes simplex-1 viruses that become activated. Harry Jacob, M.D., and colleagues report in the September 18 *Proceedings of the National Academy of Science* that their research has indicated that the herpes virus may trigger changes in the lining of a coronary artery that cause clots to form and inhibit their break-up.

Other researchers have found traces of the herpes virus in atherosclerotic plaque, but this is the first report of the link between the virus and heart attacks. As yet, the findings have stemmed from laboratory study; follow-up studies will be conducted in people. If the herpes virus theory is proven, it could lead to treatment that would prevent the virus from being activated.

MM

## *A Calendar of Continuing Medical Education Courses*

*Provided through the MMA Medical Education Subcommittee on CME Resources.* For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; 612/378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

### NOVEMBER 1990

Nov. 1-2 **3rd Annual Medical Intensive Care Conference** Hennepin County Medical Center; Hennepin County Medical Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Nov. 2 **E. T. Bell Fall Pathology Symposium** University of Minnesota Medical School; Radisson University Hotel, Minneapolis, MN. CONTACT: Pat Morandi, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Nov. 2 **Non-Pharmacologic Treatment of Cardiac Arrhythmia** University of Minnesota Medical School; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Pat Morandi, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Nov. 2-3 **3rd Annual New Ulm Fall Seminar** Sioux Valley Hospital; Holiday Inn, New Ulm, MN. CONTACT: Sue Hance, Health One CME, 2810 57th Avenue North, Minneapolis, MN 55430; 612/574-7895 or 800/347-3627.

Nov. 3 **Fall Tumor Seminar** Minnesota Society of Clinical Pathologists; Radisson Hotel Metrodome, Minneapolis, MN. CONTACT: Margo Melting-Nelson, Minnesota Medical Association, 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414; 612/378-1875.

Nov. 3-4 **Update in Cardiovascular Diseases** Mayo Clinic/Mayo Foundation; Mayo Clinic, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Nov. 3-4 **Clinical Autonomic Quantitation** Mayo Clinic/Mayo Foundation; Guggenheim Building, Mayo Clinic, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Nov. 3-4 **The Minnesota Society of Neurological Sciences** The Minnesota Society of Neurological Sciences; Sheraton Midway Hotel, St. Paul, MN. CONTACT: Lisa Deminsky, Executive Secretary, 4225 Golden Valley Road, Minneapolis, MN 55422; 612/588-0661, ext. 286.

Nov. 4 **Advances in Sleep Disorders Medicine** Mayo Clinic/Mayo Foundation; Leighton Auditorium, Siebens Building, Mayo Clinic, Rochester, MN. CONTACT: Postgraduate

Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Nov. 5-7 **Clinical Reviews** Mayo Clinic/Mayo Foundation; Mayo Civic Auditorium, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Nov. 7 **STD: Risk Assessment, Diagnosis and Treatment—Everybody's at Risk (Teleconference)** American Medical Association; United/Children's Hospital Conference Hall, St. Paul, MN. CONTACT: Health One Office of CME, 2810 57th Avenue North, Minneapolis, MN 55430-2496; 612/574-7895.

Nov. 7-9 **Laboratory Diagnosis of Bone and Mineral Disorders** Mayo Medical Laboratories; Mayo Clinic, Rochester, MN. CONTACT: Martha Carey, Mayo Medical Laboratories, 200 1st Street SW, Rochester, MN 55905; 800/562-1787.

Nov. 7-9 **Diabetes and Native Peoples: International Issues in Education, Treatment, and Prevention** Native American Research and Training Center, Indian Health Service, American Diabetes Association, International Diabetes Center; Holiday Inn, Minneapolis, MN. CONTACT: Dr. Robert Young, NARTC, 1642 East Helen Street, Tucson, AZ 85719; 602/621-5560.

Nov. 8 **Cells, Genes, and Genetic Engineering** Mayo Clinic/Mayo Foundation; Siebens Building, Mayo Clinic, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Nov. 8 **Topics in Pediatric Emergency Medicine** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Kathy Ingerson, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-5884.

Nov. 9 **Arthritis Update for Primary Care Physicians** Arthritis Care Program, Metropolitan-Mount Sinai Medical Center and Health One; Orthopaedic Learning Center, Metropolitan-Mount Sinai Medical Center, Minneapolis, MN. CONTACT: Sue Hance, Health One CME, 2810 57th Avenue North, Minneapolis, MN 55430; 612/574-7895 or 800/347-3627.

Nov. 9 **Minnesota Urological Society** Minnesota Urological Society; Hotel Sofitel, Bloomington, MN. CONTACT: Linda Reynolds, Executive Secretary, 6750 France Avenue South, Suite 149, Edina, MN 55435; 612/925-0533.

Nov. 9-10 **Pediatric Advanced Life Support (PALS) Course** Minneapolis Children's Medical Center; Minneapolis Children's Medical Center, Minneapolis, MN. CONTACT: Kathy Ingerson, 2525 Chicago Avenue South, Minneapolis, MN 55404; 612/863-5884.





# CALENDAR OF MEDICAL EVENTS

**November 16, 1990**

## **PSYCHOPHARMACOLOGY AND THE PRIMARY CARE PHYSICIAN**

**Chairman**  
**Stuart Thorson, M.D.,**  
**Hennepin County Medical Center**  
**Minneapolis**

**December 6-7, 1990**

## **CARDIOPULMONARY INTENSIVE CARE CONFERENCE**

**Co-Chairmen**  
**James W. Leatherman, MD**  
**Scott W. Sharkey, MD**  
**Hennepin County Medical Center**  
**Minneapolis**

**December 8, 1990**

## **CANCER PAIN MANAGEMENT CONFERENCE**

**Chairman**  
**Thomas E. Elliott, MD**  
**Hyatt Regency Hotel**  
**Minneapolis**



**OFFICE OF  
ACADEMIC  
AFFAIRS**



Nov. 10 **Second Annual Health One Oncology Conference** Health One; Marriott City Center, Minneapolis, MN. CONTACT: Health One Office of CME, 2810 57th Avenue North, Minneapolis, MN 55430-2496; 612/574-7895.

Nov. 15 **Merritt Putnam Symposium: Epilepsy—Diagnosis and Treatment Strategies** University of Minnesota Medical School; Sheraton Hotel, San Diego, CA. CONTACT: Pat Morandi, Box 202 UMHC, 420 Delaware Street SE, Minneapolis, MN 55455; 612/626-5525.

Nov. 15-17 **Clinical Strategies in Primary Care Medicine** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Nov. 16 **Psychopharmacology and the Primary Care Physician** Hennepin County Medical Center; Hennepin County Medical Center, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

Nov. 16-17 **Sexual Attitude Reassessment Seminars** University of Minnesota; Program in Human Sexuality, Minneapolis, MN. CONTACT: SAR Coordinator, Program in Human Sexuality, 2630 University Avenue SE, Minneapolis, MN 55414; 612/627-4360.

Nov. 30-Dec. 1 **Laser Angioplasty** Abbott Northwestern Hospital; Abbott Northwestern Hospital, Minneapolis, MN. CONTACT: Cathy Elmstrom, CME Office 14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

## DECEMBER 1990

Dec. 6-7 **Management Issues in the Clinical Laboratory** Mayo Medical Laboratories; Hotel 21 East, Chicago, IL. CONTACT: Martha Carey, Mayo Medical Laboratories, 100 First Street SW, Rochester, MN 55905; 800/562-1787.

Dec. 6-8 **Annual Cardiopulmonary Medicine Update** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Dec. 8 **Cancer Pain Initiative** Hennepin County Medical Center; Hyatt Regency Hotel, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

## JANUARY 1991

Jan. 18 **Minnesota Urological Society** Minnesota Urological Society; Hotel Sofitel, Bloomington, MN. CONTACT: Linda Reynolds, Executive Secretary, 6750 France Avenue South, Suite 149, Edina, MN 55435; 612/925-0533.

Jan. 25-26 **Current Concepts of Cardiology for the Primary Care Physician** Abbott Northwestern Hospital; Radisson Arrowwood Inn and Resort, Alexandria, MN. CONTACT: Cathy Kohn, CME Office 14202, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Jan. 30-Feb. 2 **Thoracic Organ Transplantation** Abbott Northwestern Hospital; Westin La Paloma, Tucson, AZ. CONTACT: Cathy Elmstrom, CME Office 14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

## FEBRUARY 1991

Feb. 2-8 **Update in Clinical Neurophysiology** Mayo Clinic/Mayo Foundation; Mayo Clinic/Mayo Foundation, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Feb. 11-15 **Obstetrical Review** Mayo Clinic/Mayo Foundation; Hyatt Orlando, Orlando, FL. CONTACT: Postgraduate Courses, 200 First Street SW, Rochester, MN 55905; 507/284-2509 or 800/323-2688.

Feb. 15 **Burn Care Update** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Feb. 15 **Minnesota Urological Society** Minnesota Urological Society; Hotel Sofitel, Bloomington, MN. CONTACT: Linda Reynolds, Executive Secretary, 6750 France Avenue South, Suite 149, Edina, MN 55435; 612/925-0533.

Feb. 15-16 **Sexual Attitude Reassessment Seminars (SAR)** University of Minnesota; Program in Human Sexuality, Minneapolis, MN. CONTACT: SAR Coordinator, Program in Human Sexuality, 2630 University Avenue SE, Minneapolis, MN 55414; 612/627-4360.

Feb. 18-22 **Selected Topics in Internal Medicine** Mayo Clinic/Mayo Foundation; Del Coronado, San Diego, CA. CONTACT: Post Graduate Courses, 200 First Street SW, Rochester, MN 55905; 507/284-2509.

## MARCH 1991

Mar. 1-3 **Neurology in Clinical Practice** Mayo Clinic/Mayo Foundation; Telmark Lodge, Cable, WI. CONTACT: Postgraduate Courses, 200 First Street SW, Rochester, MN 55905; 507/284-2509 or 800/323-2688.

Mar. 4-8 **Current Concepts in Gastroenterology** Mayo Clinic/Mayo Foundation; Tradewinds, St. Peters, FL. CONTACT: Postgraduate Courses, 200 First Street SW, Rochester, MN 55905; 507/284-2509.

Mar. 7-8 **Critical Care Medicine** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Mar. 12-13 **Pediatric Advanced Life Support (PALS)** St. Paul-Ramsey Medical Center; Capitol Professional Building, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Mar. 14-15 **Family Practice Today** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.



# Health One Medical Education

Nov 9

## RHEUMATOLOGY UPDATE FOR PRIMARY CARE PHYSICIANS

- Sponsored by:  
the Arthritis Care  
Program, Orthopaedic Learning  
Center, Metropolitan-  
Mount Sinai Medical Center,  
a Health One Medical Center  
1:30 p.m. - 6:00 p.m.

Nov 10

## SECOND ANNUAL HEALTH ONE ONCOLOGY CONFERENCE, for Internists, Family Practitioners and Nurses

- Marriott City Center,  
Minneapolis, Minn.  
8:00 a.m. - 3:30 p.m.

Feb 6

## MEDICAL STAFF LEADERSHIP CONFERENCE

- Hilton Metrodome,  
Minneapolis, Minnesota

Feb. 18-22

## UNDERSEA & HYPERBARIC MEDICINE COURSE

- Stouffer Wailea Beach Resort,  
Maui, Hawaii

For further information, contact the  
Office of Continuing Medical Education  
Health One (612) 574-7895 or call toll-  
free 1-800-343-DOCS.

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Mar. 15 **Minnesota Urological Society** Minnesota Urological Society; Hotel Sofitel, Bloomington, MN. CONTACT: Linda Reynolds, Executive Secretary, 6750 France Avenue South, Suite 149, Edina, MN 55435; 612/925-0533.

Mar. 23 **12th Annual Occupational Medicine Update** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Mar. 24-27 **Strategies in the Management of Complex Congenital Heart Disease** Mayo Foundation and Phoenix Children's Hospital; Camelback Inn, Scottsdale, AZ. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509 or 800/323-2688.

## A P R I L 1 9 9 1

Apr. 4-5 **Ob/Gyn Update** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Apr. 5 **Annual ENT Update for Primary Care Physicians** St. Paul-Ramsey Medical Center; St. Joseph's Hospital, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Apr. 19-20 **Sexual Attitude Reassessment Seminars (SAR)** University of Minnesota; Program in Human Sexuality, Minneapolis, MN. CONTACT: SAR Coordinator, Program in Human Sexuality, 2630 University Avenue SE, Minneapolis, MN 55414; 612/627-4360.

## J U N E 1 9 9 1

June 21-22 **Sexual Attitude Reassessment Seminars (SAR)** University of Minnesota; Program in Human Sexuality, Minneapolis, MN. CONTACT: SAR Coordinator, Program in Human Sexuality, 2630 University Avenue SE, Minneapolis, MN 55414; 612/627-4360.

## Physician Opportunities and Miscellaneous Listings

*Classified rates are 50¢ a word. Minimum monthly charge is \$10; with box number \$2 additional. Ads will not be accepted by phone.*

- Placement of ads must be made six weeks prior to the date of publication (i.e., November 15 for January ad). Please send ad requests to *Minnesota Medicine*, 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414.
- The publisher reserves the right to decline or withdraw advertisements. The publisher is not responsible for clerical or typographical errors and is not permitted to divulge the identity of advertisers who have replies sent to box numbers.
- Cancellation of ads must be made by the first of the month preceding month of issue.

**Twenty-nine Physician Multispecialty Clinic** located in desirable east-central Wisconsin location is seeking board-certified or board-qualified orthopedic surgeon to round out its services. Lab, X-ray, excellent hospital. Liberal guarantee and benefits. If interested, contact: D.F. Sweet, M.D., Fond du Lac Clinic, S.C., 80 Sheboygan Street, Fond du Lac, WI 54935. (R)

**Family Physician/Emergency Room:** Full-time salary working weekends, primarily emergency room. Flexibility available. Falls Medical Center, PA, 105 Shorewood Drive, International Falls, MN 56649. Please contact: A. Johnson, M.D., or A. Marc Gorden, M.D., at 218/283-9431 for more information. (R)

**Family Physician** wanted to join four physicians, one nurse practitioner, FP group practicing in two offices in Pine River and Pequot Lakes. Competitive salary. No ob. No HMOs. Rural area with outdoor recreational opportunities. Rotate hospital visits, emergency call; adequate free time. Call or write: C.R. Pelzl, M.D., Pine and Lakes Clinics, PO Box 88, Pine River, MN 56474; 218/587-4416. (R)

**Physician: GP/FP/EM** seeks locations to cover on weekends as locum tenens. Board-certified. FP. Lic. Minn. Write: Box 35132, Minneapolis, MN 55436. (R)

**Family Physician:** Dynamic 14-physician, two PA, three-office, single-specialty practice in northwest Minneapolis suburbs seeking additional associate, BC/BE; ob available. Competitive salary, full benefits, reasonable call and hospital rounds schedule. Contact: Dr. Jamie Peters, Northwest Family Physicians; 612/476-6776. (\*R)

**Wausau Medical Center** is seeking BC/BE individuals in the following specialties: cardiology, dermatology, family practice, infectious disease, obstetrics/gynecology, pediatrics, and rheumatology. Modern clinic facility located across the street from modern, 300-bed hospital. Full partnership

in three years. Easy access to lakes, woods, and mountains. Write (including CV) to: D.K. Aughenbaugh, M.D., Medical Director, Wausau Medical Center, 2727 Plaza Drive, Wausau, WI 55401. (R)

**Johnson & Falls Search Associates** represents new practice opportunities locally and nationally. Working exclusively in the area of physician search, we are committed to expanding your professional options while meeting our clients' needs. There are no fees to candidates. For a thorough, confidential search, send CV or call: Liz Johnson or Pat Falls, Johnson & Falls Search Associates, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0237. (R)

**Bemidji, Minnesota:** Excellent opportunities for well-trained physicians. We are seeking board-certified/board-eligible physicians in orthopedic surgery, family practice, ophthalmology, pediatrics, and otolaryngology to join a young 24-physician multispecialty group practice located in northern Minnesota. Competitive salary guarantee plus incentive first year and excellent benefits. An excellent opportunity for a physician to enjoy practice in the center of hunting, fishing, and clear air. Please respond with CV to: C.C. Lowery, Administrator, Bemidji Clinic-MeritCare, 1233 34th Street NW, Bemidji, MN 56601; 218/751-1280. (R)

**Outstanding Opportunity for a BC/BE Family Physician** to join a progressive medical community with eight physicians oriented to family practice. Details will be given by contacting: Dr. Tim Schmitt, Wadena Medical Center, 218/631-1360, or Jim Lawson, Administrator, Tri-County Hospital, Wadena, MN 56482; 218/631-3510. (R)

**Locum Tenens** physicians needed. Physicians and locations coordinating services. Write to: Margaret Carse, MED Professional Resource Search, PO Box 35215, Minneapolis, MN 55435. (10/89-R)

**St. Cloud—**Minnesota's fastest growing city—family practice physician, two pediatricians, two ob/gyns, BC/BE to join supportive primary care staff in a growing, successful, and innovative prepaid practice. New clinic facility. Full range of fringe benefits (competitive salary, liberal vacation, two weeks' education leave, retirement fund, etc.). Contact: Physician Services, Central Minnesota Group Health Plan, 1245 15th Street North, St. Cloud, MN 56303; 612/253-5220. An equal opportunity employer. (R)

**Family Practice:** Physicians seeking a BC/BE family practice physician for the Norway, Michigan, service area. The physician would have the option of joining one of the existing practices and/or setting up his/her own practice. Anderson Memorial Hospital is a part of Dickinson County Hospitals and has a service-area population of over 45,000.



## ST. CLOUD MEDICAL GROUP, P.A.

St. Cloud Medical Group, a 22 physician Multi-specialty Group, is now recruiting BC/BE physicians in the following specialties:

- Occupational Medicine
- Pediatrics
- Family Practice

Guaranteed first year salary. Production program thereafter with a full fringe benefit package.

If interested in joining a progressive Medical Group in Central Minnesota, call or send C.V. to:

Daryl G. Mathews  
Administrator  
St. Cloud Medical Group  
1301 W. St. Germain Street  
St. Cloud, MN 56301  
612-251-8181

Contact: Dr. Paul Hayes, Anderson Memorial Hospital, Main Street, Norway, MI 49870; 906/563-9243, or office 906/563-9255. 2-11/90

**Radiologist:** A three-physician radiology group is seeking a fourth radiologist with experience and interest in interventional radiology. Dickinson County Hospitals is a progressive, 126-bed, two-hospital system located in Iron Mountain, Michigan's Upper Peninsula. We have a service-area population of over 45,000. Contact and/or send résumé to: Drs. Specht/Shampo/Manzano, Radiology Department, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4565. 2-11/90

**Mankato:** FP partner to join four board-certified family physicians, ages 31-41, in fast-growing, full-range practice, includes ob. Population 40,000+. 70 miles to Twin Cities. Four colleges nearby. 90+ physicians on hospital staff. Academic appointment available. Call: Tony Giefer, M.D.; 507/387-8231. (1/90-R)

**Family Physicians:** Well-established south suburban Minneapolis family practice group seeks associates part/full time to staff day clinic. Excellent call schedule, salary, and fringe benefits. Also seeking locum tenens to staff PT/FT Urgent Care Centers and/or day clinic. Contact: Administration, Family Physicians, P.A., 612/435-4125, or send inquiries to Suite 100, 14050 Nicollet Avenue South, Burnsville, MN 55337. (\*9/89-R)

**Family Practice—Hospital-Sponsored Clinic Opportunity:** Dynamic growth-oriented hospital in beautiful north-central Wisconsin is seeking two family physicians for a new clinic facility currently being constructed. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefit package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus, and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Dan McCormick, President, Allen McCormick, France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435; 612/835-5123. (R)

**Urgent Care/Primary Care** physicians for over 90 group positions in metropolitan Phoenix/Tucson, Arizona. Excellent compensation/partnership opportunities. Other quality positions nationwide. Send CV or call: Mitch Young (MM), PO Box 1804, Scottsdale, AZ 85252; 602/990-8080. (\*1/90-R)

**Dermatologist, Psychiatrist, Allergist, Internal Medicine, Family Practice:** A progressive, 126-bed, two-hospital system is seeking the above specialties to establish practices in the Iron Mountain area of Michigan's Upper Peninsula. Must be BC/BE. Located 100 miles north of Green Bay, Wisconsin. Dickinson County Hospitals has a medical staff of 45 full-time physicians and a total service area population of over 45,000. Diagnostic capabilities include a CT scanner, CO<sub>2</sub> laser, and a fully staffed special diagnostic department. Contact: John Schon, Administrator, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4500. \*2-12/90

**BC/BE Family Practice and Internal Medicine Physician:** Excellent opportunity to join well-established, progressive 20-physician multispecialty group located in an economically sound community of 20,000 (drawing area of 30,000), 65 miles south of the Twin Cities. Full membership after one year. Competitive salary and fringe benefits package. Contact: Ed Durst, M.D., or Terry Tone, Administrator, 134 Southview, Owatonna, MN 55060; 507/451-1120. (2/90-R)

**Forest Lake Doctor's Clinic** is seeking a BC/BE family physician, pediatrician, ob/gyn, and internist to join 10-physician multispecialty group. Located 25 miles north of Minneapolis-St. Paul in progressive community with excellent schools, many beautiful lakes, recreational activities, golf, fishing, boating, skiing. Local hospital directly across street. Contact: Dr. Harvey J. Frank or Dr. Doug Sill, 121 SE 11th Avenue, Forest Lake, MN 55025; 612/464-7100. (4/90-R)

**Positions Available in Family Practice, Internal Medicine, Obstetrics/Gynecology, General Surgery, and Pediatrics:** 28-physician multispecialty clinic seeking additional physicians in FP, IM, Ob/Gyn, GS, and Peds departments. Interstate Medical Center offers a competitive salary, com-

prehensive benefits, and the support and team approach of a multispecialty environment. Red Wing is a midsized community along the bluffs of the Mississippi River only 40 miles from the Minneapolis/St. Paul area. Area highlights include an excellent school system, a growing cultural environment, water recreation, skiing, and an active business climate. Red Wing has all the benefits of a metro area in a serene setting. For additional information, please call or send CV to: Don Bruns, M.D., Highway 61 West, Red Wing, MN 55066; 612/388-3503. \*3-11/90

**Internist** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809. (\*3/90-R)

**Family Practitioner** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809. (\*3/90-R)

**Family Practice, Internal Medicine, Pediatrics, Urology, Obstetrics and Gynecology, Dermatology, and Orthopedics** practice opportunities available at the Faribault Clinic. The Faribault Clinic is a multispecialty group practice of 14 physicians. Faribault is located 50 miles south of Minneapolis on I-35. For more information contact: Ray W. Wood, M.D., or Ken Smith, Administrator, 924 NE 1st Street, Faribault, MN 55021; 507/334-3921. (4/90-R)

**Family Physician:** Tired of call? Want predictable hours? Full-time physician needed to work three days per week in our outpatient family practice clinics. Salary plus bonus and benefits including malpractice insurance. Contact: Todd Patton, M.D., or William Wenmark, CEO, c/o NOW Care Medical Centers, 13031 Ridgedale Drive, Minneapolis, MN 55343; 612/593-9010. (5/90-R)

**Sanibel Island for Rent:** 2 BR condo, by day or week, on beautiful Sanibel Island, Florida. Home of famous wildlife refuge. Swim, shell, or just relax. Extensive bike paths, two Island golf courses. \$445 per week through 12/15/90, then \$775 per week through season. Call Toni, 612/869-1404. 7-12/90

**Downtown Office Space for Rent:** Physician in the Medical Arts Building, 825, wishes to sublet to another physician on a part-time basis for the purpose of sharing overhead expenses. Call: 612/370-0553. (6/90-R)

**Mankato Clinic, Ltd.** is seeking BC/BE physicians in the following specialties: dermatology, invasive cardiology, ob/gyn, oncology/hematology, pulmonary medicine, vascular surgery, family practice, pediatrics, and general internal medicine. The Mankato Clinic is a 43-doctor multispecialty group practice in south-central Minnesota with a trade area population of +200,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time

off. For more information call: Roger Greenwald, Administrator, or Dr. B.C. McGregor, 507/625-1811, or write: 501 Holly Lane, Mankato, MN 56001. (6/90-R)

**Family Physician for Southwest Suburban Minneapolis:** BC/BE to join rapidly growing practice in Chaska, a rapidly expanding suburban Minneapolis community. Competitive salary, full benefits. Hospitals in Shakopee and Waconia. Provider for many health plans. Be prepared to be busy with the full spectrum of family practice. Contact: David Willey, M.D., or Betty Kuelbs, R.N., Valley Family Practice, 822 Yellow Brick Road, Chaska, MN 55318; 612/448/3303. 6-12/90

**Michigan—Ann Arbor Suburb:** Primary care specialists needed. Group-managed practice. Call one in three. First-year income guarantee, benefits, and paid malpractice. Call: Wanda Parker, Senior Associate, E.G. Todd Associates, 535 Fifth Avenue, Suite 1100, New York, NY 10017. Toll free: 800/221-4762. Collect: 212/599-6200. \*6-12/90

**BC/BE Family Physician:** Full time or part time. Progressive community clinic, competitive salary and benefits, ob optional. Contact: Gordon Lester, M.D., or Tom Yardic, Executive Director, West Side Health Center, (La Clinica), 153 Concord Street, St. Paul, MN 55107; 612/222-1816. 4-11/90

**Wisconsin:** Third BC/BE obstetrician/gynecologist needed to join stable, progressive, primary-care-based HMO/group practice in university town of 60,000 near Minneapolis-St. Paul. Excellent quality of life and outstanding recreational area. Competitive salary and fringe benefits. Contact: Stuart R. Lancer, M.D., Medical Director, Group Health Cooperative, PO Box 3217, Eau Claire, WI 54702-3217; 715/836-8552. \*3-2/91

**Phoenix, Arizona:** BC/BE family physician needed for established medical group. Practice located in a desirable high-growth area. Excellent compensation and benefits package. Send CV to: Minnesota Medicine (843), 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414. 12-7/91

**Family Practice / North Shore Lake Superior:** BC/BE family physician to join busy practice in primary care clinic of four family physicians with consulting internist, ophthalmologist, general surgeon, and orthopedic surgeon. Advantages of living in a small town while being only 22 miles from Duluth metro area. Contact: Lee Cohen or Steve Bjorum, Administrator, Community Health Center, Inc., 4th Street at 11th Avenue, Two Harbors, MN 55616; 218/834-7207. EOE/AA. (8/90-R)

**Olmsted Medical Group** is currently seeking board certified/eligible physicians in the following specialties: general surgery, family practice, emergency medicine, pediatrics, and ob/gyn. Excellent opportunity for well-trained physicians to join a 50+ physician multispecialty group in an established, progressive practice. In addition to the recently



**BE/BC FAMILY PHYSICIAN****Rum River Medical Associates, Ltd.**

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- Immediate Opportunity/Join 2 FP's Milaca Office
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- First Year Salary Guarantee with Incentive
- Interest in Obstetrics

Call Collect/Contact: Malvena Lepler, Clinic Manager or Dr. Peter Jensen, C.E.O., (612) 389-3344/3345, 111 N. 7th Ave., Princeton, MN 55371

expanded main office in Rochester, Minnesota, the group operates eight branch offices in southeastern Minnesota. Affiliate hospital recently underwent complete renovation and expansion. Competitive salary/benefits package includes malpractice insurance, flexible benefits plan, 401K and profit sharing, and relocation assistance. Send CV to: Olmsted Medical Group, Attn: Susan Schuett, 210 Ninth Street SE, Rochester, MN 55904. (8/90-R)

**Internist** (with or without subspecialty) needed to join three-person internal medicine practice. Send CV to: J.E. McCrery, M.D., 1527 Broadway, Alexandria, MN 56308. 5-12/90

**BC/BE Family Physician** to join a progressive multispecialty group of 12 physicians located in a community of 11,000 (drawing area of 70,000). Full ownership status after one year. Competitive salary and excellent fringe benefits package. Contact: Steve Duncan, Administrator, Fairmont Medical Clinic, PO Box 800, Fairmont, MN 56031-0800; 507/238-4263. 6-1/91

**Family Physician:** Part-time positions staffing convenience care medical center. Competitive hourly salary plus malpractice insurance. Call or write: Bob Kantor, M.D., Grove Square Convenience Care, 13800 83rd Way, Maple Grove, MN 55369; home: 612/591-0437, work: 612/420-4279. 14-9/91

**Lake City, Minnesota:** Family physician BC/BE needed to join three other FPs in progressive, growing practice on Lake Pepin/Mississippi River in southeastern Minnesota. Excellent first-year salary/benefits in a scenic community with multiple recreational opportunities. Contact: D.D. Pflaum, M.D., 303 South Washington, Lake City, MN; 612/345-3318. (8/90-R)

**Family Practice—Minnesota:** Physician needed for employment or ownership of broad-based practice in rural community 45 minutes south of metro area. Existing shared call, tremendous earning history of retired physician, and fully equipped and staffed office. Near outstanding hospital with all specialties represented. Guaranteed compensation, full benefits, bonus. For this and other opportunities in the Upper Midwest, send CV: Mary Jo Cordes, MDsearch, PO Box 21507, St. Paul, MN 55121. Call collect 612/454-7291. 4-12/90

**Pediatrician:** Gillette Children's Hospital is seeking a pediatrician who is a graduate of an accredited pediatric residency program in the United States anticipating board certification by 1992 to provide inpatient and outpatient pediatric care in a specialty hospital-based interdisciplinary care model for children with disabilities and chronic care needs. This is a new position that will join the hospital-based practice with an existing chronic care developmental pediatrician and a pediatric rehabilitation medicine specialist as well as pediatric orthopedists, pediatric neurologists, and other pediatric subspecialties. Gillette Children's Hospital is affiliated with Minneapolis Children's Medical Center and provides specialty care to children who have cerebral palsy, myelomeningocele, head injury, ventilator dependencies, epilepsy, and orthopedic surgical needs. Send CV and letter to: Medical Director, Gillette Children's Hospital, 200 East University Avenue, St. Paul, MN 55101. 3-11/90

**Solo Harvard- and Mayo-trained Internist** in Clearwater, Florida, planning gradual retirement. Need board internist phasing in and purchasing practice over two to five years. Own expandable office across from large voluntary hospital. Reply: Minnesota Medicine (844), 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414. 3-11/90

**Family Practice / Urology / Orthopedic Surgery:** Dakota Clinic, Ltd., Wahpeton, North Dakota, seeking BC/BE physicians. The Wahpeton Clinic (a new facility as of April 1990) is currently staffed by 14 physicians serving a six-county area in three states. Beautiful Minnesota lakes district within 30 miles. Excellent fringe benefits package. Please contact: Corrine Romereim, Division Manager, 275 South 11th Street, Wahpeton, ND 58075; 701/642-2000. \*6-2/91

**Family Physician** to join medical staff of three family practitioners in well-established, growing clinic in central Minnesota along southern shore of beautiful Mille Lacs Lake. Excellent subspecialty support, progressive community hospital, diverse patient population. Guaranteed salary,

excellent benefits. Call collect, 612/532-3154 or write Fred Haack, Mille Lacs Health System, 200 North Elm Street, Onamia, MN 56359. 6-2/91

**MDsearch** assists medical groups and hospitals in their recruiting efforts. For confidential information on opportunities in the Upper Midwest, send CV and/or call collect: Mary Jo Cordes, MDsearch, PO Box 21507, St. Paul, MN 55121; 612/454-7291. 12-8/91

**Cannon Falls:** Lease or buy established medical clinic building; partially furnished, including X-ray. Adequate for two physicians. Excellent hospital in community. Call: Dr. Klefsstad, 507/263-3545. Write: Box 98, Cannon Falls, MN 55009. (9/90-R)

**Family Practice:** BC/BE family practitioner to join 21-person family practice department that is part of a 45-person multispecialty group located in the northern suburbs of Minneapolis. Practice opportunities available in rural and suburban locations. Highly competitive first-year guaranteed salary, production-based compensation, exceptional benefits package. Respond with CV to: Richard Bertie, M.D., 9055 Springbrook Drive, Coon Rapids, MN 55433; 612/780-9155. \*1-11/90

**Rheumatologists:** 115-physician multispecialty clinic in the Fox River Valley of northeastern Wisconsin desires a BC/BE rheumatologist to join a department of three BC rheumatologists. Two-year guarantee, plus comprehensive benefits package offered. This area, which encompasses Appleton, Neenah, and Oshkosh with a combined population of +300,000, offers a superb recreational, cultural, and family environment in which to practice. For information please call or write: Roger Rathert, M.D., La Salle Clinic, 411 Lincoln Street, Neenah, WI 54956; 414/727-2702. 2-11/90

**Two Ob/Gyn Physician Openings** in a clean, conservative, progressive Midwest community of 50,000 population. Starting salary \$200,000 plus a \$50,000 signing bonus. Also, there are internal medicine and dermatology openings in this community. Call: Professional Careers, Inc., 612/796-6220. 2-11/90

**Busy St. Paul Family Practice Clinic** looking for additional associate by January 1, 1991. Inquire: 612/293-9199, Dr. Tim Rumsey. \*2-11/90

**Internal Medicine:** Minneapolis, Minnesota suburban multispecialty group with seven internists is seeking internist with or without subspecialty interest. One-hospital practice, excellent salary and benefits program. Contact: Sim Gesundheit, M.D., 612/571-0457 or send CV to: Columbia Park Medical Group, 6200 Shingle Creek Parkway, Suite 480, Brooklyn Center, MN 55430. 3-12/90

**Minneapolis, Minnesota:** Suburban practice, just 10 minutes from downtown. Multispecialty group with 25 family practice physicians has an excellent opportunity available.

## INTERNAL MEDICINE PEDIATRICS, DERMATOLOGY and E.N.T.

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- 20 Physician Multi-Specialty Clinic
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- Two Hours from Minneapolis
- Ideal for Families

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Call is one in 25 weekdays and one in four weekends (one day), full day off during week, excellent compensation, and unparalleled benefits program. Call: Robert Hovda, M.D., 612/788-9601, or write: Columbia Park Medical Group, #480, 6200 Shingle Creek Parkway, Brooklyn Center, MN 55430. 3-12/90

**Practice For Sale in Beautiful Southwest Montana:** Fishing, camping, and boating at your doorstep. Family practice with terminations of pregnancy. Price: \$50,000, negotiable. Reply with CV to: Minnesota Medicine (845), 2221 University Avenue SE, Minneapolis, MN 55414. 3-12/90

**Eugene, Oregon—Family Practice:** 36-physician multispecialty group is seeking BC/BE family physician. Ob optional. Excellent schools. Abundant cultural and recreational opportunities. Near Cascade Mountains and coast. Home of University of Oregon. Please send CV to: Rob Daugherty, M.D., Oregon Medical Group, 2484 River Road, Eugene, OR 97404; or phone: 503/688-9140. 3-12/90

**Internal Medicine and Family Practice Physicians—BC/BE:** Exceptional opportunity to join our well-established, very busy multispecialty clinic located in Milwaukee. Attractive and well-equipped building including in-house laboratory, X-ray department, business department, etc. Excellent progressive hospitals, medical school, regional medical center. The greater Milwaukee area offers superb family environment, diverse cultural and recreational options. This is a



unique, outstanding professional and personal opportunity! Please send CV or contact: Jonathan Slomowitz, M.D., Mitchell Medical Center, 1672 South Ninth Street, Milwaukee, WI 53204; 414/383-4700. 3-12/90

**Office Space Available for Sublease:** Fully equipped and staffed. Medical building attached to Methodist Hospital. Call: Dalia, 612/927-4071. (10/90-R)

**The University of Minnesota School of Dentistry** invites applications for research specialist (M.S. required), research fellow (D.D.S. required), research associate (Ph.D. required), and postdoctoral associate (Ph.D. required) positions. Applicants must have at least two years of research training. Positions will provide research expertise in planning and execution of research design and methodology. The University of Minnesota is an equal opportunity educator and employer and specifically invites and encourages women and minorities. Send résumé, indicating areas of research training by 6/30/91 to: Dean Richard P. Elzay, University of Minnesota School of Dentistry, 515 Delaware Street SE, Minneapolis, MN 55455. \*1-11/90

**State-of-the-Art Used Ultrasound Equipment for Sale:** Two-year-old ATL Ultramark 8 with Doppler, three transducers, VCR, and Matrix camera, 52K. Four-year-old ATL Ultramark 4 with Doppler, three transducers, VCR, and Matrix camera, 40K. Matrix camera Model 1010, 5K. Medasonics Hand Held 5MHZ Doppler probe, \$250. 8 x 10 Matrix

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3-1/91

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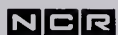
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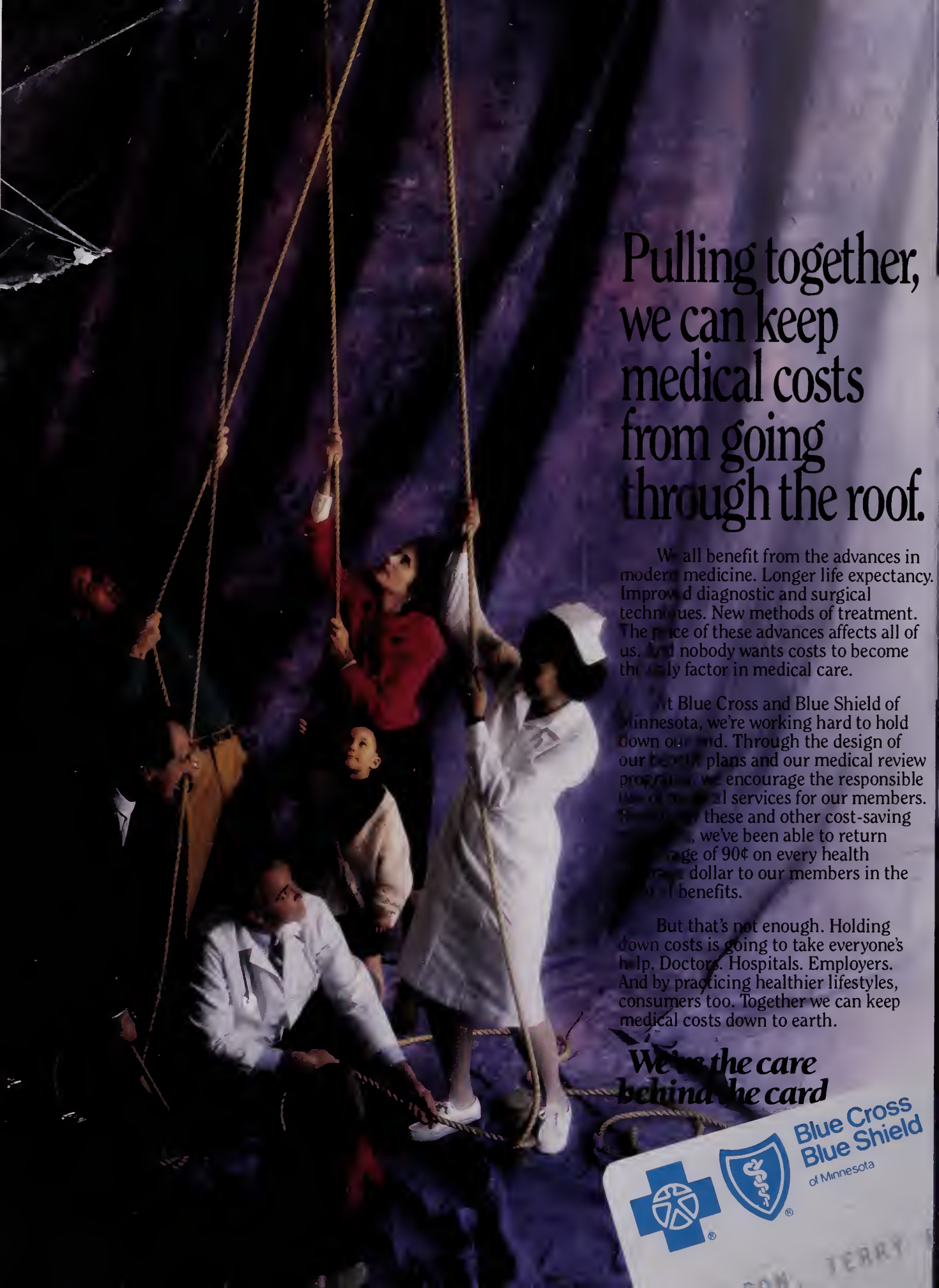
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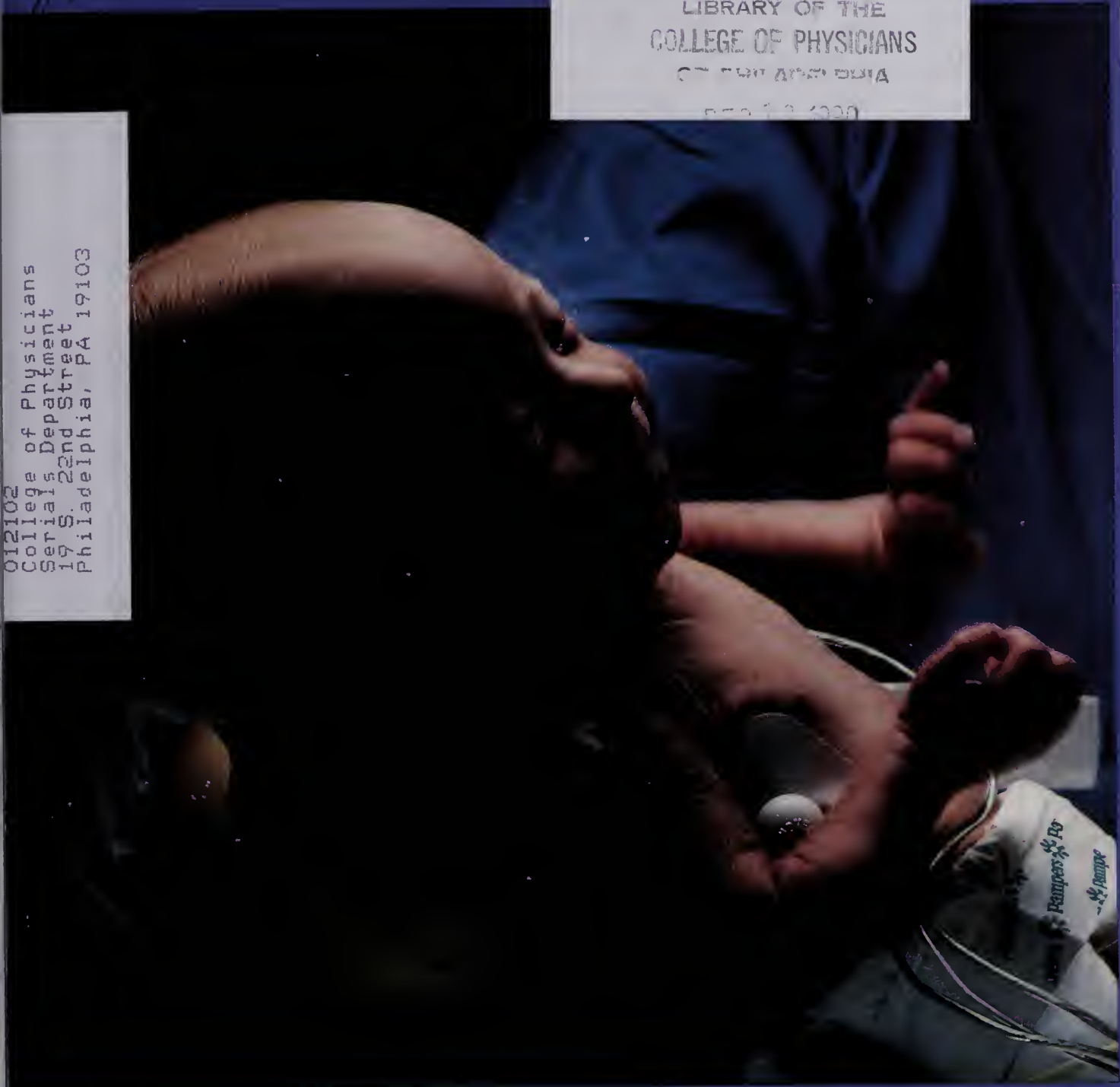
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Cover photo by Brady Wyllette of Wyllette Photography in Minneapolis, courtesy of Children's Hospital of St. Paul.

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# VASOTEC®

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VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

**Contraindications:** VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

**Warnings:** Angioedema: Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

**Hypertension:** Excessive hypertension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypertension usually is not necessary when dosing instructions are followed, caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hypotension, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

**Neutropenia/Agranulocytosis:** Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

**Precautions: General Impaired Renal Function.** As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

**Evaluation of patients with hypertension or heart failure should always include assessment of renal function.** (See DOSAGE AND ADMINISTRATION.)

**Hyperkalemia:** Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

**Surgery/Anesthesia:** In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

**Information for Patients:**

**Angioedema:** Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

**Hypotension:** Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

**Hyperkalemia:** Patients should be told not to use salt substitutes containing potassium without consulting their physician.

**Neutropenia:** Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

**NOTE:** As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

**Drug Interactions:**

**Hypertension. Patients on Diuretic Therapy:** Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

**Agents Causing Renin Release:** The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

**Other Cardiovascular Agents:** VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyl-dopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

**Agents Increasing Serum Potassium:** VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

**Lithium:** Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

**Pregnancy—Category C:** There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not

been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

**Nursing Mothers:** Milk in lactating rats contains radioactivity following administration of <sup>14</sup>C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

**Pediatric Use:** Safety and effectiveness in children have not been established.

**Adverse Reactions:** VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

**HYPERTENSION:** The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

**HEART FAILURE:** The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic effects (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

**Cardiovascular:** Cardiac arrest; myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension); pulmonary embolism and infarction; pulmonary edema, rhythm disturbances, atrial fibrillation; palpitation.

**Digestive:** Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

**Musculoskeletal:** Muscle cramps.

**Nervous/Psychiatric:** Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

**Urogenital:** Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

**Respiratory:** Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

**Skin:** Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

**Special Senses:** Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermalogic manifestations.

**Angioedema:** Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately (See WARNINGS.)

**Hypotension:** In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

**Clinical Laboratory Test Findings:**

**Serum Electrolytes:** Hyperkalemia (see PRECAUTIONS), hypotension.

**Creatinine, Blood Urea Nitrogen:** In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 1% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

**Hemoglobin and Hematocrit:** Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

**Other (Causal Relationship Unknown):** In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

**Liver Function Tests:** Elevations of liver enzymes and/or serum bilirubin have occurred.

**Dosage and Administration: Hypertension.** In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

**Dosage Adjustment in Hypertensive Patients with Renal Impairment:** The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 mL/min (serum creatinine up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

**Heart Failure:** VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

**Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hypotension:** In patients with heart failure who have hypotension (serum sodium < 130 mEq/L) or with serum creatinine > 1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d. then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19386. J9V561R2(820)

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VASOTEC is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor. A diminished antihypertensive effect toward the end of the dosing interval can occur in some patients.

For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

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# I Bid You Farewell

Richard L. Reece, M.D.

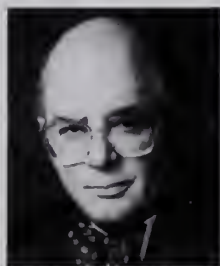
## Dear Minnesota Physicians:

I want you to know the *Minnesota Medicine* staff, under tight deadline pressure, composed the November Editor's Notebook. I personally did not write it, and I was unaware it was being written for me. But, as stated in the editorial, I am stepping down as editor-in-chief to enter pathology practice in another state. This is my last editorial.

I came to Minnesota for opportunity, and I am leaving for opportunity. I have contributed what I could to Minnesota. I have helped to build an innovative laboratory, served as editor-in-chief of *Minnesota Medicine*, given insight into forces molding Minnesota's health care system, defended the traditional practices of medicine, and participated in creating an international network of premier physicians for those seeking the best in medicine. My work here is complete.

The Twin Cities has a mature medical market. A dozen major health care corporations dominate. These corporations are in competitive deadlock. Their stagnant growth forces these large health care organizations to consolidate into still larger corporations. The PHP-Share merger is the latest example of consolidation and concentration. The managed care war is over, and the managers have won.

For physicians like myself, who desire independence and equity and who prefer smaller groups, better opportunities exist elsewhere. Minnesota physicians who are not in large organizations find themselves outside looking in. Consequently, a steady exodus of some of us to other states has been underway for a few years now.



"During my editorship, the practice of medicine has gone through turbulent change."

## Proud, Thankful, Nostalgic

I am proud to have been editor-in-chief of *Minnesota Medicine* for 16 years, longer than any of my predecessors. But the time has come for a new editor-in-chief, for someone more at ease with Minnesota's managed health care system.

I am thankful to the Board of Trustees of the Minnesota Medical Association for granting me the privilege of serving as editor-in-chief. I also thank my Board of Editors and my predecessors, Drs. Carl Rice and Reuben Berman, for their guidance and wisdom. Finally, I owe a note of thanks to my managing editors, first Elaine Nye and now her successor, Meredith McNab. All of these people made it possible to produce a journal of which I was consistently proud.

I am nostalgic because I will miss Minnesota physicians. You have been cooperative and attentive, and you have given me the freedom to say what I wanted to say.

## Coming to Minnesota

I arrived in Minnesota fresh out of residency 25 years ago from Connecticut. I approached Editor-in-Chief Dr. Carl Rice and told him expression was the need of my soul. Dr. Rice responded by offering me the chance to contribute book reviews, commentaries, articles, and bits of whimsy. The Board of Trustees appointed me editor-in-chief in January 1975, and I've enjoyed myself ever since. For me, the editorship has been a labor of love.

I've sought to bring what talents I have to this journal. As you know, my particular interest has been in describing the seismic forces that have shaken the foundation of our traditional medical system. During my editorship, medical practice has gone through turbulent change. This rough passage has transformed physicians' lives. Instead of practicing independently, most physicians are now working for competing organizations.

## Belief in Scientific Papers

Let the record show I believed *Minnesota Medicine* should feature as many scientific papers of merit as possible. The decision to limit clinical papers was not mine. It was the choice of the members of the MMA Board of Trustees, who were responding to pleas for more socioeconomic papers. I agree with the trustees that the journal can be and should be selective in choosing scientific articles. However, I also believe that managed care and governmental pressures have detracted from scientific discourse by diverting attention to issues of economic survival.

## Concluding Remarks

I will miss Minnesota, and I will miss you. Minnesota is an exemplary state



in most ways. You have hard-working people, a spirit of collective enterprise, an extraordinary quality of cultural life, a widely heralded health care system, and a collection of fine physicians. I plan to return to Minnesota to visit.

I am pleased to have served as your editor. I bid you a fond farewell. Godspeed.

*Richard L. Reece, M.D.*

P.S. Shortly after I became editor-in-chief in 1975, I introduced minny, a cockroach, as the literary mascot for *Minnesota Medicine*. If you'll recall, minny composed her poems by hurling herself headlong onto the typewriter keys. But, alas, her light weight didn't allow her to strike the capital letters and punctuation marks hard enough to make them register. So her poems, free of capitals and punctuation marks, look odd to the unenlightened reader.

Minny traces her ancestry to archy, a character created by New York newspaper columnist Don Marquis in the 1930s, and to William Shakespeare himself.

Although minny writes in blank verse, her thoughts are not blank. Nor is she firing blanks. She is what she is, a high-kicking free spirit who cherishes her independence from her boss, the editor. She regards him as a compulsive nerd and an overweening geek. As the literary mascot for *Minnesota Medicine*, her job was to fill in while the boss is away, physically or mentally. Here she is—in her last poetic flight.

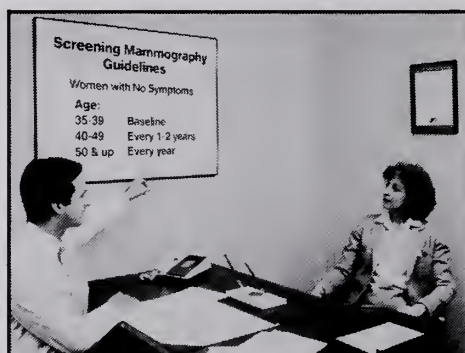
the boss says this is my last poem  
he told me in no uncertain terms  
to bug off and to go  
to some offal place  
so I ll bid you goodbye  
with this irish verse  
may the road rise to meet you  
may the wind be always at your  
back  
may the sun shine warm upon  
your face  
may the rains fall softly on your  
fields  
and until we meet again  
may god hold you in the palm of  
his hand

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## Pain Control

I am the internist from the "small town not more than an hour from the Twin Cities" who attended the 75-year-old grandmother with terminal cancer described in your October 1990 article "Pain Control in Dying Patients: How Much Is Too Much?" This case is well-remembered by the nurses involved and by me precisely because it did raise difficult ethical issues. These issues, however, were considerably more complex than simple adequacy of analgesia in terminal patients.

Although the case was grossly distorted in the article, I will not belabor you with a point-by-point refutation. Suffice it to say that the patient had terminal cancer, and her mental status alternated between dense obtundation and agitated delirium. She was at no point in her final days able to give an objective assessment of her degree of pain. Family, physician, and nursing staff were forced to make purely subjective determinations of suffering. My medical judgment, and that of the nurses involved, was that the family was misinterpreting delirious and other physiologic behavior as painful. I personally observed the family to interpret myoclonic twitching of a hand, or episodes of diaphoresis, as evidence of "pain," even though the patient was completely unconscious at the time.

The patient received not only intravenous morphine, but also IV lorazepam and haloperidol targeted specifically at delirium. When, in delirium, she attempted to pull out her IV, I did suggest that soft restraints might be helpful. The nurses were reluctant at times to give continuous doses of morphine. They felt it was reasonable to hold



a dose when the patient was completely unconscious and had depressed respirations. Some raised ethical objections and felt that the wishes of the family were perilously close to illegal. As the attending physician, I was left to steer a course between the wishes of the family and reluctant nurses who felt that pain control was adequate and that only a state of general anesthesia could satisfy the family. It was at this point that the patient's daughter "offered to sign a statement saying the family wouldn't sue." Family members stated they would release us from liability if, in fact, we did kill the patient with excessive morphine!

I am writing now to clarify distortions in the article and to emphasize the complexities—medical and ethical—of treating terminally ill patients.

General Internist  
Name withheld on request

## AMP for Acute and Postherpetic Neuralgia

In response to the article "Treatment of Acute Herpetic Neuralgia: A Case Report and Review of the

Literature" (*Minnesota Medicine*, April 1990) by Todd M. Hess et al. of the Mayo Clinic, I wish to state adenosine monophosphate (AMP), a safe, natural, cellular metabolite, was completely effective in arresting the rash and postherpetic neuralgia in more than 1,000 office patients and with no sequelae or side effects. No return of rash or neuralgia has been reported over our 14 years of observation.

I also would like to refer the authors and your readers to a placebo-controlled, double-blind study published in *JAMA*,<sup>1</sup> demonstrating AMP's successful treatment of herpes zoster. Another short, preliminary, double-blind study published in *Anesthesiology*,<sup>2</sup> using 0.25% solution of bupivacaine in sympathetic blockade, appeared somewhat successful, but in a crossover study AMP was superior in treating the neuralgia.

Human<sup>1</sup> and other *in vivo*<sup>3</sup> studies of adenosine monophosphate have demonstrated that we have an effective agent that should be developed, and I believe the Mayo Clinic authors should investigate this form of therapy.

Dr. Hess and colleagues mention in their article that there are 300,000 cases of shingles in the United States annually. The British Medical Registry, with over 25 years of observation, reported the annual rate to be 3.4/1,000 cases of shingles out of the total medical cases reported to the registry. But shingles need no longer be a dreaded, painful disease for senior citizens who have been fortunate enough to be treated with AMP therapy.

S. Harvey Sklar, M.D., M.S.P.H.  
Shingles Clinic  
Englewood Hospital  
Englewood, New Jersey

*Continued*



## REFERENCES

1. Sklar SH, Blue WT, Alexander EJ, Bodian CA: Herpes zoster: The treatment and prevention of neuralgia with adenosine monophosphate. *JAMA* 253:1427, 1985.
2. Brookshire GL, Cook J, Sklar SH: Sympathetic blockade versus adenosine monophosphate for the prevention and treatment of post herpetic neuralgia. *Anesthesiology* 87(No. 3A):A247, 1987.
3. Blue WT, Macias EA, Sklar SH: Activity of AMP against experimental herpes simplex virus type 1 infections in mice. *Antimicrob Agents Chemother* 24:807-809, 1983.

## New ddI Information

By mid-July 1990, more than 10,000 patients with AIDS or ARC had received ddI, an experimental anti-HIV drug, through either Phase II clinical trials supported by the National Institute of Allergy and Infectious Diseases (NIAID) or through an expanded access program initiated by Bristol-Myers Squibb Co. Although well-tolerated overall, ddI produces some toxicities: pancreatitis has been reported in 1.5% of patients enrolled in the Phase II trials and in 2% of patients enrolled in the expanded access program. The risk of pancreatitis appears to be strongly correlated with history of pancreatitis and with advanced HIV disease and poor clinical status.

NIAID has prepared a "Note to Physicians" detailing specific precautions for doctors to consider to decrease the risks of pancreatitis, along with a description of other side effects. The ddI Note to Physicians and information on the ddI and other AIDS studies can be obtained by contacting the AIDS Clinical Trials Information Service (ACTIS) at 1-800/TRIALS-A.

Physicians are strongly encouraged to consider referral of eligible patients to the ddI controlled clinical trials, the completion of which is essential for a full understanding of ddI's long-term safety and efficacy in treatment of HIV-infected patients.

Two of the Phase II trials compare the safety and efficacy of ddI and AZT in AIDS or ARC patients, and a third evaluates ddI

in AIDS or ARC patients intolerant to AZT. The trials are conducted by NIAID's AIDS Clinical Trials Group.

Bristol-Myers Squibb Co. is offering an expanded access program to provide ddI to patients with HIV who are ineligible for the Phase II trials. More information on this program is available through the company's VIDEX Information Center at 1-800/662-7999.

The long-term efficacy and safety of a drug like ddI can be fully understood only through the results of controlled clinical trials. To speed this process, the assistance and cooperation of all physicians in identifying and referring patients to the trials is needed.

Patricia S. Randall  
Director

Office of Communications  
National Institute of Allergy and  
Infectious Diseases  
Bethesda, Maryland

## Dr. Reece—A Job Well Done

Thank you for a wonderful 16 years of *Minnesota Medicine*. I have delighted in your monthly column as well as the scientific, socially conscious, and scientific bent the magazine has taken under your direction.

Tim Rumsey, M.D.  
United Family Practice  
St. Paul, Minnesota

I just read that you were going to be leaving *Minnesota Medicine*. I'd like to express my thanks for your willingness to serve as editor-in-chief of the journal and also for the excellent job you performed. It has been tremendously beneficial to all of us, and we are deeply indebted.

Thanks again.

Donnell D. Etzwiler, M.D.  
President and Chief Medical Officer  
International Diabetes Center  
Park Nicollet Medical Foundation  
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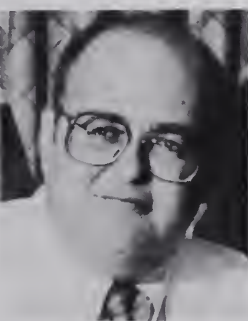
# The Minnesota Medical Association's Chief Physician

*Minnesota Medicine interviews Paul S. Sanders, M.D.*

**T**his interview with Paul S. Sanders, M.D., concludes the interviews I will conduct for Minnesota Medicine. My aim in these interviews has been to acquaint you with the leaders, movers, and shakers in health care. I hope I have humanized the decision makers so you can better understand what's been happening—often behind the scenes—in a rapidly changing health care environment.

Dr. Paul Sanders is the first physician chief executive officer of the Minnesota Medical Association. Dr. Sanders, who left his family practice in Cambridge, Minnesota, to join the MMA staff, talks easily and well about the issues facing Minnesota physicians. He believes his background as a physician will help him represent other physicians as the medical association addresses such tough problems as how to ensure access to health care for all Minnesotans.

Dr. Sanders, who was chairman of the MMA Board of Trustees before accepting the CEO position, has a thorough grasp of issues inside and outside the medical association. The Minnesota Medical Association is in good hands. I wish Dr. Sanders and the association well.



Paul S. Sanders, M.D.

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“Health care is a drama in that it affects people’s very core of life.”

## Practitioner-turned-CEO

**Minnesota Medicine:** Dr. Sanders, you’re the new chief executive officer of the Minnesota Medical Association. You assumed those duties officially on September 1. How do you view your new role?

**Sanders:** I see myself as having two significant roles. The first role being the managing of 30 employees who perform services for the MMA membership. It’s my responsibility to see that the association runs smoothly and well. The second role is that of liaison with our physician members. I am hopeful that my being a physician will allow me to work more closely with our doctors and with organizations throughout the state.

**Minnesota Medicine:** Do you feel you can make a different kind of contribution as a manager of an organization rather than as a practitioner in a 23-physician group?

**Sanders:** Definitely. The clinical practice of medicine is very rewarding. You get a lot of personal rewards from seeing 30 to 35 patients a day who appreciate what you are doing. In fact, you get a lot of accolades as a private physician. But the issues facing medicine right now are of such magnitude that we physicians need to look beyond our individual patients and deal with the bigger issues. I can do that at the Minnesota Medical Association.

## Image Building

**Minnesota Medicine:** Are you anxious to recast the image of physicians?

**Sanders:** Very much so. Physicians need to be seen as having a significant role in the drama of solving the health care problems we face, not, as we are so often portrayed, as insulated, isolated, self-driven individuals.

**Minnesota Medicine:** How can physicians project a more constructive image?

**Sanders:** We can do it by becoming involved in the issues that face people every day. As physicians, we need to demonstrate that we are sensitive to our patients’ economic realities. For many people, the basic issue is money. Are the financial resources there to pay for health care? We physicians have to help answer these difficult questions.

**Minnesota Medicine:** So we can no longer sit on top of this technological pedestal and hand down the goods of science from on high?

**Sanders:** No. We used to have the luxury of saying, “I’ll provide the service, I’ll charge for it, and if you’re fortunate enough to have insurance, you can pay for it.” We can’t do that anymore. We have to be part of the dialogue that asks, “What are the appropriate choices of technology? What are the appropriate choices of services? Do we have the resources to pay for them?”

**Minnesota Medicine:** You have described health care as a “drama.” Do you believe health care is a drama that’s gripping society?



**Sanders:** It's a drama in that it affects people's very core of life. Health care is central to people's existence. Both fortunately and unfortunately, it makes good fodder for politicians, who need a forum to demonstrate their capabilities. Health care is a topic that interests everybody.

**Minnesota Medicine:** The public frequently thinks of doctors as wealthy. A recent *Medical Economics* survey indicated the average income of doctors is \$144,000 a year. This information feeds that perception. And yet, you and I know that many doctors, particularly primary care physicians and physicians on the front lines in rural areas, don't even approach that income. How do you give the public a clear perception of the life of a front-line physician?

**Sanders:** You don't change the misperception by denying that some physicians do make a lot of money. You do it by demonstrating that physicians are actively involved in their communities. You show that they are concerned about health care issues, that they are not just recipients of the health care dollar but are involved in deciding on how it's going to be spent. When physicians capably demonstrate that degree of involvement, the issues of income are going to diminish, and the public will not be so critical of physicians.

### *Redistributing the Dollars*

**Minnesota Medicine:** So we recast our image only when we demonstrate that we are returning something to our communities?

**Sanders:** Yes, I think that's right. The public looks at some of the physicians on the high end of the scale, with six-figure incomes, and they say that isn't right. We physicians may need to consider appropriate redistribution of those dollars.

**Minnesota Medicine:** Isn't that what the resource-based relative value scale is all about? Isn't RBRVS an attempt by Congress to reflect the will of the people, which is to redistribute income among physicians?

**Sanders:** That is the intent. In fact, if the RBRVS is allowed to play out the way it was enacted, some of that will happen. Minnesota patients and their physicians will benefit from RBRVS because it will reduce geographic disparities in Medicare reimbursement. It also attempts to eliminate the specialty differentials and to measure practice costs more appropriately.

**Minnesota Medicine:** I read recently in *Health Affairs* that physicians in southeastern Minnesota, which is predominantly rural, can anticipate an increase of about 28 percent in income as a result of RBRVS. But there has been one unfortunate side effect of the RBRVS. That is the cap on balanced billing. That's having a negative impact. Could you explain why?

**Sanders:** Basically, the RBRVS was supposed to be passed as a package. Physicians, including Minnesota physicians, agreed that it would be appropriate to have a cap on the balance billing of Medicare patients once the RBRVS fee schedule is enacted. Unfortunately, the cap on balanced billing has been put in place effective January 1, 1991, although the five-year phasing in of the RBRVS does not begin until 1992.

The cap is especially detrimental to rural primary care physicians, whom RBRVS was supposed to help. We're afraid that rural physicians can't survive the cuts even for one year. If physicians can't survive, hospitals can't survive, and a whole cascade of problems begins.

**Minnesota Medicine:** The public at large doesn't understand that a lot of urban primary care physicians have much higher Medicare fees and, therefore, do not have to balance bill. They become the "good guys" in the public eye. Do you agree that the public doesn't understand this disparity in billing?

**Sanders:** The public clearly doesn't understand the disparity. If Minnesota physicians were to have Medicare fee schedules like they have in Boston, for example, our rates would go up about 180 percent. We could live with those kind of caps.

Every Medicare recipient in this country pays the same amount for Part B Medicare, yet the return they

get through reimbursements varies by as much as 300 percent. It happens that two of the three lowest Medicare districts (out of 240) in the country are in Minnesota. Unfortunately, people across the nation don't understand that disparity, and, naturally, the people who benefit from it don't want it to change.

**Minnesota Medicine:** If you were an emotional man, you might even say these stark disparities constitute a national Medicare scandal.

**Sanders:** I believe it is scandalous. Medicare's evolution since its enactment in 1965 has not been logical, orderly, or well-planned. Medicare has evolved on the basis of legislators' ability to satisfy their own constituencies.

### *Rural Plight*

**Minnesota Medicine:** You have practiced for 16 years in Cambridge, Minnesota, a semi-rural community. How desperate do you think the rural doctors' economic plight is?

**Sanders:** It's very serious. Rural physicians have been struggling for a long time to receive adequate compensation. They see RBRVS as a potential solution, but it will be phased in over five years. That's an economic threat because some rural physicians can't wait that long. Now they feel they are being attacked with the cap on balanced billing.

---

"Physicians need to  
look beyond our  
individual patients  
and deal with the  
bigger issues."

**Minnesota Medicine:** How much of a problem is physician recruitment in rural areas?

**Sanders:** Recruitment is a tremendous problem. A Minnesota Medical Association and Minnesota Hospital Association survey last year showed that almost 90 percent of rural clinics were recruiting for an average of more than 20 months. Two years is a long time to be looking for help when you're already overworked. Rural physicians are scared. They're afraid they are not going to be able, economically or physically, to continue to practice where they are. It's a very real crisis.

**Minnesota Medicine:** They're not only afraid for themselves but for their patients?

**Sanders:** Absolutely. Rural physicians are central to their local economies. Physicians keep the hospitals open; in turn, hospitals keep the pharmacies open; and hospitals, pharmacies, and physicians keep the long-term care facilities open.

**Minnesota Medicine:** Another recent threat to rural hospitals is the Clinical Laboratory Improvements Act, which says, among other things, that these rural hospitals have to have highly qualified medical technologists and pathologists or Ph.D.s serving those hospitals. How significant is this issue in Minnesota?

**Sanders:** The CLIA '88 regulations may be more onerous than any previous legislation related to Medicare. CLIA '88 sneaked up on us at the end of the legislative session. It was developed by legislative staff members who probably didn't fully understand its implications. We've had difficulty dealing with it because the legislation passed so quickly, and it is now at the regulatory phase. CLIA '88 definitely has the potential to shut down physician offices and rural hospital labs.

Fortunately, physicians across the country made their voices heard. The Health Care Financing Administration received more than 50,000 comments on the regulations. In response to those comments, HCFA has agreed to completely rewrite these regulations over the next 12 to 18 months.

### ***Improving Access to Care***

**Minnesota Medicine:** You've been chief executive officer of the MMA for a few months now. As Garrison Keillor says, Minnesota is a place where the men are handsome, the women are strong, and the children are above average, and everybody knows what needs to be done. What needs to be done?

**Sanders:** MMA needs to be an active, visible player in solving the problem of health care access. If physicians are not seen as being active, viable players on this front, we will not be heard on other fronts.

**Minnesota Medicine:** How close are we in Minnesota to

approaching a solution to these problems?

**Sanders:** The public seems to have concluded that the solutions to these problems are going to be legislative. Our legislators, as usual, are going to be very eager to portray themselves as saviors. They will seize upon any solution that appears to be clean, logical, and manageable. Many legislators believe Minnesota's Health Care Access Commission offers that clean, simple, slick approach. We have offered our input to the commission in hopes of helping to shape a proposal that will serve the needs of both patients and providers.

**Minnesota Medicine:** Minnesotans seem to share the belief that any social problem ought to be manageable.

**Sanders:** Minnesota has distinguished itself as being concerned with the social problems of its people, and we've coupled that concern with a fairly liberal political environment. We tend to look upon ourselves as problem solvers, especially in the area of health care. In fact, we are a very healthy state; earlier this year, Minnesota was ranked as the nation's No. 1 state of good health.

**Minnesota Medicine:** Perhaps social activism is a good thing.

**Sanders:** Not all bad. And I believe physicians can play a significant role in solving society's problems.

**Minnesota Medicine:** So in your new leadership role, you're planning to serve Minnesotans in a highly visible way?

**Sanders:** That is my intent. I think that's what is expected of me in this new position. The Minnesota Medical Association has very capable elected board members, officers, and staff members. My job is to help them fulfill their responsibilities.

**Minnesota Medicine:** Do you intend to make any structural changes within the organization to redefine its mission and philosophy in any way?

**Sanders:** I have no immediate plans for any great reshaping of the organization.

**Minnesota Medicine:** I'm leaving a career in Minnesota and going to another state, and you're coming into a new career. I'm stepping down as editor-in-chief of *Minnesota Medicine* after 16 years. Do you have any thoughts about future plans for the journal—what it might contribute to your crusade?

**Sanders:** *Minnesota Medicine* has distinguished itself as a high-quality journal. The recent broadening of its focus has been positive. A lot of people besides physicians read our journal. The journal helps demonstrate that Minnesota physicians are concerned about society in general, and it will stand us in good stead as we try to improve the public's perception of us as physicians.

**MM**



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Dr. Holwick outside of hospital where she practices as a civilian traumatologist.



Dr. Holwick in operating room at Letterman Army Medical Center.

## JANN L. HOLWICK, M.D.

General and Trauma Surgeon.  
Captain, U.S. Army Reserve.

**EDUCATION** University of Southern California, B.S.;  
University of California School of Medicine.

**RESIDENCY** Harbor General Hospital—UCLA  
Medical Center.

**HOSPITAL AFFILIATIONS** St. Luke Hospital;  
Huntington Memorial Hospital, Pasadena, California;  
Traumatologist, Arcadia Methodist Hospital, Arcadia,  
California.

**OUTSTANDING ACHIEVEMENTS** Borden  
Freshman Prize; Alpha Lambda Delta; Phi Beta Kappa;  
Phi Kappa Phi; Bovard Award; ALD Award; American  
Institute of Chemists Medal Award; Summa Cum Laude,  
University of California; Alpha Omega Alpha.

“When you enter private practice, the only cases seen are usually those limited to your specialty. Serving as a physician in the Army Reserve offers me a departure from my daily routine. I can be involved in virtually anything I choose. If a certain case interests me, I can ask to be part of the surgical team. If I wish to spend time teaching students, I have that option, too.

“As a Reserve physician, I’ve had the opportunity to interact with different people, from various backgrounds, with assorted medical and social viewpoints. As a result, I’ve grown as a physician and as a person.

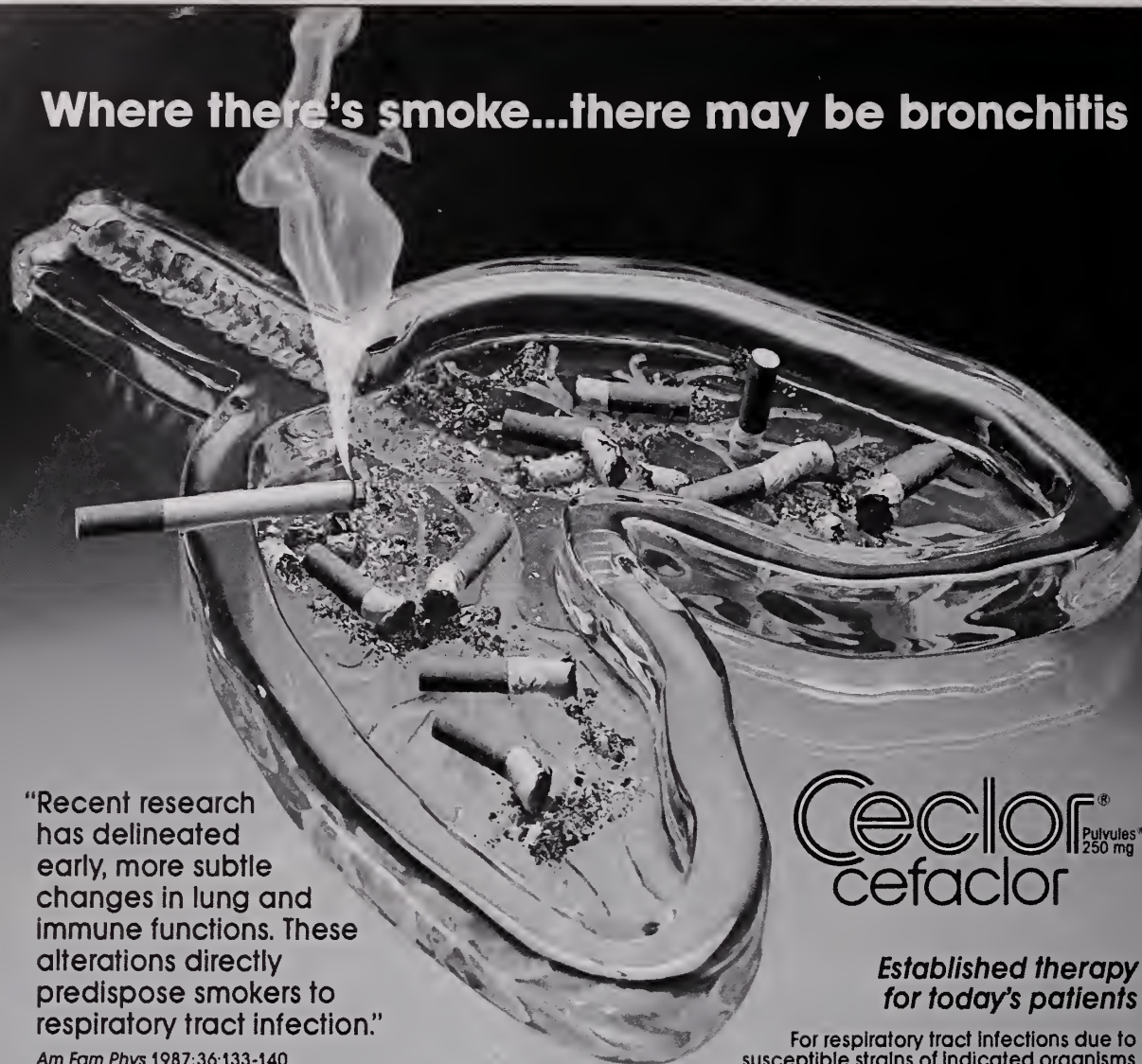
“I spent six months looking into the Army Reserve program before I joined, wanting to make sure that my skill and time would be put to good use. I’ve been a Reservist three years now, and I still find it extremely rewarding. I have the satisfaction of knowing that I’m serving my country.”

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# Where there's smoke...there may be bronchitis



"Recent research has delineated early, more subtle changes in lung and immune functions. These alterations directly predispose smokers to respiratory tract infection."

*Am Fam Phys* 1987;36:133-140

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For respiratory tract infections due to susceptible strains of indicated organisms

#### Brief Summary.

Consult the package literature for prescribing information. Indication: Lower respiratory infections, including pneumonia, caused by *Streptococcus pneumoniae*, *Haemophilus influenzae*, and *Streptococcus pyogenes* (group A  $\beta$ -hemolytic streptococci).

Contraindication: Known allergy to cephalosporins. Warnings: CECLOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS. PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY. POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS.

Administer cautiously to allergic patients.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

#### Precautions:

- Discontinue Cefclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of non-susceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Cefclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Cefclor penetrates mother's milk. Exercise caution in prescribing for these patients.

#### Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:

- Hypersensitivity reactions have been reported in about 1.5% of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions have been reported with the use of Cefclor. These are characterized by findings of erythema multiforme, rashes, and other skin manifestations accompanied by arthritis/arthralgia, with or without fever, and differ from classic serum sickness in that there is infrequently associated lymphadenopathy and proteinuria, no circulating immune complexes, and no evidence to date of sequelae of the reaction. While further investigation is ongoing, serum-sickness-like reactions appear to be due to hypersensitivity and more often occur during or following a second (or subsequent) course of therapy with Cefclor. Such reactions have been reported more frequently in children than in adults with an overall occurrence ranging from 1 in 200 (0.5%) in one focused trial to 2 in 8,346 (0.024%) in overall clinical trials (with an incidence in children in clinical trials of 0.055%) to 1 in 38,000 (0.003%) in spontaneous event reports. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy; occasionally these reactions have resulted in hospitalization, usually of short duration (median hospitalization = two to three days, based on postmarketing surveillance studies). In those requiring hospitalization, the symptoms have ranged from mild to severe at the time of admission with more of the severe reactions occurring in children. Antihistamines and glucocorticoids appear to enhance resolution of the signs and symptoms. No serious sequelae have been reported.
- Stevens-Johnson syndrome, toxic epidermal necrolysis,

and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.

- Gastrointestinal (mostly diarrhea): 2.5%
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertension, dizziness, and somnolence have been reported.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial nephritis.

#### Abnormalities in laboratory results of uncertain etiology.

- Slight elevations in hepatic enzymes.
- Transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia.
- Rare reports of increased prothrombin time with or without clinical bleeding in patients receiving Cefclor and Coumadin concomitantly.
- Abnormal urinalysis; elevations in BUN or serum creatinine.
- Positive direct Coombs' test.
- False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinistest<sup>®</sup> tablets but not with Tes-Tape<sup>®</sup> (glucose enzymatic test strip, Lilly).

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# About the Men of Mettle

## *University of Minnesota Medical School 1936-1940\**

Harry A. Wilmer, M.D. Ph.D.

*In the heat of scientific theorising or dialectical argument it is sometimes salutary to be reminded that we are men thinking; but, after all, it is no news. We know that life is a dream, and how should thinking be more? Yet the thinking must go on, and the only vital question is to what practical or poetic conceptions it is able to lead us.<sup>1</sup>*

George Santayana

We wrote our prescriptions in Latin; the pharmacists weighed and measured powders and poured them into papers that they folded. The 1940 "Gopher" annual was dedicated to Will and Charlie Mayo, who had died last September. Will was quoted: "We shall never have the whole thing. There will always be a new hallway full of doors."

And we marched into Northrop Memorial Auditorium for Cap & Gown Day to the music of "Marche Pontificale" and Mendelssohn's "March of the Priests," and eight days later, on June 16, into Memorial Stadium for commencement.

That was something. *The Memorial Stadium!*

The Golden Gophers had won three national championships in the last six years, had led the Big Ten until 1939, when they slumped. Bernie Bierman in his quiet, shy, philosophical manner had reminded us that there is always another year.

The university theater group had opened its season with Thornton Wilder's "Our Town," in which the inhabitants of Grover's Corner are seen: "So, friends, this the way we were in our growing up and in our marrying and in our doctoring and in our living and in our dying."

And the dead from Grover's

Corner came back to talk in wisdom to the living, honoring the present in light of the past.

Harold Diehl had been made dean, moving from the Student Health Service and his dedicated work on the common cold, to fill the post left by Richard Scammon, who became Distinguished Service Research Professor.

Scammon, that genius, that giant, that idiosyncratic scholar of embryology, measurement, culture, anatomy, history, mathematics, who in his ponderous Northumbrian way, held us students spellbound and stimulated as he drew on the blackboard with both hands simultaneously.

He and I wrote several papers together. And he always put my name first.

Scammon seemed to know everything, and we called him "The Source."<sup>2</sup> I began to write his biography:

*Those were the days, my friends,  
Those were the days . . .*

Last night Neil White said to me, "We were at the best medical school in the United States." I think he

was right.

And we who lived and learned in the Golden Times ought never forget about "Microbe Hunters" (by Paul Dekruif) and Sinclair Lewis's *Arrowsmith*. . . .

"The plague had only begun to invade St. Swithin's . . . he divided the population in two equal parts, one of them . . . was injected with plague phage; the other half was left without. He began to succeed. The pest attacked the unphaged half of the parish much more heavily than those who had been treated . . . and he moved into a room behind the Surgeon General's office. Beside his cot there was always a bottle because death had for the first time been brought to him . . . 'Oh damn experimentation!' And, despite Stokes' dismay, he gave the phage to everyone who asked. . . . With a nurse for assistant, he stood in the bare office. File on file of people, black, white, Hindu, stood in an agitated cue a block long, ten deep, waiting dumbly, as for death. . . . As they left him they fluttered with gratitude—'Oh, may God bless you, Doctor'—But he did not hear."<sup>3</sup>

From 1936 to 1940 was a time of the battle of giants in the amphitheaters of academia—of Wangensteen's and Watson's gladiatorial intellectual combat on such things as the medical versus the surgical treatment of ulcer.

We cannot forget the life-saving heroic work of the Wangensteen Tubes for intestinal obstruction that saved hundreds of thousands of lives, or the breathtaking, saber-sharp clinical pathological conference.

*Those were the times, my friends,  
Those were the times . . .*

\*Presented at the 50th reunion of the Medical School Class of 1940 at the University of Minnesota, June 1, 1990.



And like Sir Luke Fildes's painting the "Doctor," we sat at the bedside and waited for the crisis to pass like the lysis in pneumonia—to know if the patient would live or die.

We heard the cries of children

---

“1936-1940 was a  
time of the battle of  
giants in the  
amphitheaters of  
academia.”

---

with smallpox and diphtheria with their horrid throats and gasping pain.

There were the rows of iron lungs encasing paralyzed polio victims. No polio vaccine.

One cannot easily forget the sound of the mechanical breathing prisons.

No chemotherapy!

Sir Alexander Fleming was on the horizon about to spring penicillin into the world. At the dinner for Sir Alexander on July 16, 1945, at the Mayo Foundation House, I heard him say, "Dr. Keith was asking me if the discovery of penicillin was pragmatic or epistemic. I don't know, but, you see, I am not a scholar, just a bacteriologist, that's all. I am one of the fortunate bacteriologists who happens to do something which came into medical practice. Most bacteriologists do far better things, but they are just plain bacteriologists and physicians don't use them."<sup>4</sup> No hype. No hero's hubris.

We were still marveling about the discovery of insulin and wondering why our teacher, Moses Barron, had not gone that one step further and discovered insulin himself, but Banting and Best had read his paper.

Frederick Banting wrote: "After reading the article by Barron, I was unable to sleep. There seemed to be some vague relation between the islet cells of pancreas and clinical diabe-

tes. . . . There seems also to be a means of extracting the islet cells by ligation of the pancreatic duct . . . 2 o'clock in the morning I was able to crystallize the idea into a form that would lead to experimentation."<sup>5</sup>

Cecil Watson telling us at rounds of the discovery of the anticoagulant, dicumarol. Cecil was ecstatic as he brought us this news one morning. There were few specific drugs we could really count on. We watched the barbaric metrazol convulsive therapy for depression and schizophrenia at Hennepin County Hospital. I could hardly bear to see it.

There was Leo Rigler, exuberant, vibrant, actually creating the field of diagnostic radiology. One day he astounded us at his famous Saturday morning radiology conference by looking at an X-ray of a man brought into the emergency room that previous night. Rigler looked at the X-rays of this man's broken feet a very long time, then turned to us and told us that this was a 30-year-old black man who had fallen so many feet and landed on a concrete structure. Then squinting at the X-rays, he told us the exact number of hours the bones had been fractured.

After our gasps and

ohs and ahs, he smiled and confessed he had read about the accident in the morning newspaper while riding the streetcar to work.

Showmen . . . teachers . . . scholars . . . writers . . . research clinicians. They made indelible impressions—taught us lessons like Zen Masters' mondos. Such men of mettle.

• Cecil Watson at age 36 had been made chairman of the Department of Medicine in 1938.

• Maurice Visscher at age 35 became head of Physiology in 1936.

• Leo Rigler at age 30 made head of Radiology in 1927.

• Owen Wangersteen at age 30 made head of Surgery in 1930 but had been selected for that post four years earlier, unbeknownst to him.

• Irving McQuarrie, John McKelvey, Charnley McKinley, ebullient Bill O'Brien, Theodore Rasmussen, Ruth Boynton, Hal Downey, Bill Peyton, Edward Boyden, and others.

It was a time of brilliant thinking—and it all sounded so wonderfully ethereal and down to earth at the same time.

In my office I have a cartoon of Descartes's dog with the caption "I bark, therefore I am."

I showed this cartoon

to Martin Marty, professor at the University of Chicago, who said, "Do you know the time that Descartes lectured at the University of Chicago? When he flew to New York, the airline hostess asked him, 'Do you want anything to drink?'"

"No," he replied, "I think not," and disappeared."

Rather like us medical students.

Moses Barron strides into the amphitheater. A patient is wheeled on a gurney from the other side. Barron puts a hand on the abdomen, his face lights with sudden astonishment. And without another word, he gestures to the nurse to wheel the patient out.

Moses turns to us and says, "Only in a case of acute myelogenous leukemia would one ever feel a spleen that large in a patient that age who looks like this."

Oh, yes, there were George Fahr's astonishing revelations from little points of history woven with little points of physical findings into brilliant

Sherlock Holmes diagnoses.

No CAT scans, no blood monogoose levels.

We who saw these things, can we forget? There was the bedside caring. Careful inspection, percussion and



Cecil J. Watson  
1944



Harold S. Diehl  
1937



Leo G. Rigler  
1940

auscultation, hands-on medicine, and our treasured stethoscopes we let show out of the pockets of our white jackets—not slung around our necks like a lasso, or a silver fox fur.

In our freshman year, we dove into the dissection room and began that sobering work—carrying our three-volume Werner Spalteholz's *Hand Atlas of Human Anatomy*, which weighed seven and one-half pounds, and an equally heavy Morris's *Human Anatomy*, edited by Clarence Jackson.

But it all came to life with teachers like Scammon, whose biography I struggled for 10 years to write, until I realized I couldn't do it. I was too close to him. I held him in too much awe to write objectively of his life. So I turned over the 2,000 pages of typescript to the university library archives.

Scammon told me of a book he wanted to write called "Men of Mettle," and that is where the title of my paper comes from. If I speak of men and not women of mettle, it is because in those days our great teachers were all men. Today it would be different.

And gentleman, teacher, and scholar Clarence Jackson, stooped and tremorous with his Parkinson's

the fortunate ones of us who went on to the Mayo Graduate School of Medicine of the University of Minnesota at Rochester.

I was lucky enough to have been a fellow with both Scammon and Bell, and at the Mayo Clinic and then to be on its staff: doctors working and cooperating in the world's first private group clinic.

Meanwhile, back at the university campus, we watched bizarre goings on in physiology. In Maurice Vischer's famous Department of Physiology, the joint surgical research team did something—called heart-lung

experiments. What weird, far-out stuff. Making heart or lung transplants. For the birds.

Some birds. Like Wangenstein's students—C. Walton Lillehei, Richard de Wall, John Najarian, and Christiaan Barnard—they did it.

Those were the days. We were grounded in the fundamentals of the human body, methodical

thinking, and pathology in E.T. Bell's glorious department. His door was always open. He was always thinking, always kind, clear, always writing and rewriting his textbook.

Many years later, when he came to see me shortly before he died, he was blind and very old. He confided to me that he had always hoped I would be his successor after he left. I cried.

There was warm, funny, and good camaraderie in our class: competitive, ambitious, rivalrous, yes, but not the cut-throat jungle we see today in pre-med, medical, and graduate schools, in publicity-seeking and advertising doctors who have customers and clients instead of patients, who are identified as providers for consumers. We are now on the slippery slope while we dance "The Medicare" at the third party. Alas, what's on top now is the bottom line.

There was a sort of dignity. We dressed carefully and neatly not slop-

pily. We even shaved.

We went "through the alimentary canal with gun and camera."<sup>6</sup> There we met the great Omentum

---

"There was warm, funny, and good camaraderie in our class."

and we joked and laughed and mourned for our patients who died.

Upon our graduation, Eli Lilly Company gave each one of us a hardbound copy of Sir William Osler's *Aequanimitas: With Other Addresses to Medical Students, Nurses and Practitioners of Medicine*, in which Osler said:

"Let me congratulate you on the choice of your calling which offers a combination of intellectual and moral interests found in no other profession, and not met with at all in the common pursuits of life. . . . Search the scriptures of human achievement and you cannot find any to equal in beneficence the introduction of anesthesia, sanitation, with all that it includes, and asepsis a short half century's contribution toward the practical solution of the problems of human suffering, regarded as eternal and insoluble. We form almost a monopoly

or trust in this business."

We sought to emulate the true physician's bedside medicine, really to listen, to take meticulous history, and to make a careful physical exam.

We still could hear the siren vocation of medicine as a calling. We spoke of the sacred doctor-patient relationship without crossing our fingers.

In those days, we could go out and hang our shingles. Doctors were honored, respected leaders. The little black bag was even a revered symbol. It was possible to graduate without



Richard E.  
Scammon  
1930



Elexious  
Thompson Bell  
1930

---

"It was a time of brilliant thinking—and it all sounded so wonderfully ethereal and down to earth at the same time."

disease relentlessly crippling him, but never missing a day running the Department of Anatomy.

And can we ever forget the comic rivalry and snide remarks about the "Mayowho Clinic, that place somewhere in southern Minnesota"? Ah,



being in debt, and we expected to run our own lives and practices—to do it ourselves without a dictating governmental tyrant.

Yes, those were flowering times of medicine, when discoveries were being made by individuals or very small groups, when the cost of research was still on the earth. At the end of the year, there was \$15 left in the Pathology Department fund, so E.T. Bell let me buy a silver goosed-neck light for my rabbit surgery.

*Those were the times, my friends . . .*

And yet, there were seeds of dark times coming . . . dangerous times.

The war. Many of us were in ROTC and many of us would go to war. The previous September, some people in the United States were praising Hitler, even as the Nazis invaded Poland.

Suddenly we graduated; we began to move away from one another, and our class would become a class-in-name-and-memory.

We went to our internships almost everywhere, and some of us fell

**"There is a danger  
that science and  
technology will  
hopelessly outstep  
the humanity of  
medicine."**

ill, and some died.

I contracted tuberculosis as an intern in Panama. I spent 11 months on strict bedrest at Glen Lake Sanitarium in Hopkins, Minnesota, and then I was at Trudeau Sanitarium in Saranac Lake, New York. There were no drugs.

I met "Huber the Tuber"<sup>8</sup> and wrote about his lives and loves with an introduction by our historian of tuberculosis, J. Arthur Myers.

We knew the risks of being a physician. And it did not occur to us to sue anyone. Sue because I got TB? Not like the resident in New York who sued for \$160 million because of a contaminated needle from which she got AIDS.

In 1945, when I came to Rochester to begin my Mayo fellowship, my friends Drs. William Feldman and



Owen H.  
Wangenstein  
1945

Corwin Hinshaw showed me two sets of guinea pigs, one of which they had given streptomycin and the other group not. The autopsies showed no tuberculosis in the treated pigs and disseminated tuberculosis in the others.

That happened just three years after I left the sanitarium.

Our patients thought of suing last. Malpractice, while present, was not an obsession of patients, of society, of lawyers, of physicians-turned-lawyers. The cost of malpractice insurance was negligible. Visscher was leading a national campaign to keep the antivivisectionist forces from stopping research.

Today in animal research there is a siege mentality induced by the violent animal rights activists.

It was still a time of heroes and heroic research. People volunteered as subjects. They even died sometimes. We thought of the future of ourselves and medicine. It was mostly bright and hopeful.

Rural hospitals were being built, not closed down. Trauma centers were being conceived, not discarded. Not like today, when statistics show that 698 hospitals closed from 1980 to 1989.

"For-profit hospital" was almost an oxymoron.

The government had not yet gotten its gangrenous foot in the medical practice door, which we would open so unwittingly.

The Mayo Clinic accepted no federal money for research. Federal funds were given for prevention and

treatment of major public health problems.

And yet, there is always a shadow, a portent—we could see it in medicine in the bureaucracy where Cronus would eat his children.

Still on the front line there was the individual doctor, proud of his profession, dedicated to care and learning. Not all doctors, naturally, but it looked mighty good. We carried a heritage of a noble profession.

Today, those of us who survived and were nourished by those times have things to say. We ought not just fade away.

Fifty years ago, medicine seemed to be moving toward a promised land. But by 1978 Sir George Pickering was to write an important, prophetic, shattering article titled "Medicine at the Brink."<sup>9</sup> Pickering said: "I believe that the profession of medicine is now facing a dilemma which may destroy it unless the nature and the choice is seen clearly and

faced with insight, courage, and resolution. . . . Should medicine behave as a learned profession or as a technical trade union? . . . What would have been regarded as unprofessional behavior is not only tolerated but encouraged by both senior and junior doctors. That is what I mean by medicine at the brink."

And things sound strange to us old-timers. Some of us feel like the diver deep in the sea who hears on his earphone: "Come up quick, the ship is sinking."

For all the wonder, grandeur, and lifesaving technology, for all the greatness of medicine and prevention, healing, and super technology today, there is an equally great shadow—a danger that science and technology will hopelessly outstep the humanity of medicine, the caring profession. One day maybe we will cross the point of no return.

We are not there—yet.

We must work for the new humanity of medicine, remembering that the pendulum in human affairs always swings like the principle Heraclitus had called enantiodromia,<sup>10</sup>



Maurice Visscher  
1936

which translated means that sooner or later everything turns into its opposite. We must work for a new and better age of medicine. It is a story of good and evil, of life and death, of endings and new beginnings. Out of suffering and darkness come light and salvation. Physician heal thyself!

Finally, I want to remember our 40 classmates who have died with the sonnet by Dr. Merrill Moore, my deceased friend and psychiatrist from Boston:<sup>11</sup>

*I was behind him walking to class,  
He delayed to tie an untied shoe,  
We spoke, and from then on acquaint-  
tance grew.*

*After his brother died he used to pass  
the evening studying in my room  
with me,*

*At midnight we'd go to the lunch-cart  
and get food*

*And when war came I advised him to  
go to sea,*

*he did that without loss of blood.*

*Then he went to Akron . . .*

*Christmas he sent me a card and one  
at Easter*

*with notes how he was making mon-  
ey faster*

*than I was to buy things that he  
admires,*

*until yesterday when his landlady  
wrote to say*

*that he died Thursday. This is Sat-  
urday.*

---

*Harry Wilmer is a practicing Jungian  
analyst and president, director, and  
founder of the Institute for the Hu-  
manities in Salado, Texas.*

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# With Grandchildren, On the Banks of the Zumbro



## Summer Fireflies

*Shadows always called them  
out from magic hidden huts  
instead into our  
ready jars with slippery sides  
they fell, carrying lights.*

*We should have let them go  
but couldn't,  
meantime  
to let in air we  
poked the tops with sharpened nails.  
In darkness even  
we could see their  
phosphorescence dim, up  
until we set them free to float  
to tops of oaks  
now fully clothed in midnight stars.*

## Autumn Fishing

*He drops his line in water,  
a liquid mirror.  
Quarters flash along the banks of  
ageless river, giving  
light to him and I  
waiting with our poles and  
hooks and cut-up bait.*

*Pull! Now  
the thread is running in his hands out  
from kyphotic pole down to  
a single speckled trout,  
who swims in voiceless fear.*

*The skimming water kite is  
severed from its air, to dangle,  
flying quiet circles in the sky.*

*He wants to bear it home  
this trophy, memento from the lake.  
We do, yet both of us  
are tired as we hike  
memorizing  
this very second  
strong with fish-smell and scales, hook  
and knotted line along  
the darkening woods.*

## Cutting Christmas Tree

*Snow kisses the mountainside  
covering wheels as we fly, yet  
for him I am driving too slow.  
Leathered boots, soft flannel  
shirt, first cutting with his sharpened ax.  
He has found this clearing, hollow space  
high among trees, green walls of silence  
inside snow  
broken  
as the blade cuts through the bark down  
to a fir's deep wood.*

*We like to think how far we go between the seed  
and harvest time, but  
it's short work.  
He's almost done. He is strong, not  
pausing to look or think.  
We must ride home soon with  
the smell of green inside the truck,  
needles brush my leg—  
noiseless just as the  
hawk-tail beach grasses  
along the late-year tide  
unfolding.*

*S. Horatio Slawson, M.D.  
Diagnostic Radiology, Mayo Clinic,  
Rochester, Minnesota*

## Promoting Prenatal Care

# Minnesota Champions Its Babies

By Carole Cheely Johnson



COURTESY OF BRADY WYLLETTE CHILDREN'S HOSPITAL OF ST. PAUL

Minnesota has the fifth lowest infant mortality among the 50 states<sup>1</sup>—a ranking not as laudable as it first seems. At least, not if one takes a look at the world perspective, where America has an infant mortality rate\* that ranks behind 18 other nations.<sup>2</sup>

How did Americans achieve such a lackluster showing in a matter so close to the heart? “In the late ’70s and early ’80s, the primary concern of most people in the medical community was the question

of how to survive financially,” explains Sara Mullett, M.P.H., R.N., maternal infant nurse consultant for the Minnesota Department of Health. “DRG reimbursement started driving the system, and we lost some of what had traditionally been part of medicine and nursing: the caring. However, in the last few years, we’ve begun to recognize that someone has to look out for our vulnerable populations. And mothers and babies are vulnerable.”

Barbara Yawn, M.D., a family practitioner from Worthington, Minnesota, recognizes the politics of this vulnerability: “A lot of very vocal special interest groups—teachers, seniors, gays, whoever—can

\*Number of infant deaths within the first year of life for every 1,000 live births.



get out and vote for their own concerns. But there is no Gray Panthers for babies. Children can't vote, so they require a totally separate advocacy group," said Yawn, who is currently a Bush fellow in clinical research design and statistical analysis in Rochester, Minnesota.

Offering another insight on how the infant mortality problem could have been ignored, Yawn adds, "Many physicians deliver no more than 50 or 60 babies per year, so they don't see a lot of low-birthweight or preterm deliveries, two major contributors to infant mortality. A pattern of low birthweights is not readily apparent in that number of babies. It's important to step back and look at the situation from a broader health perspective."

With that broader perspective in mind, Minnesota has begun to be the champion of its babies. In fact, the state goals for producing healthy babies by the year 2000 exceed those established by the federal government (figure). By the turn of the century, Washington hopes to achieve a national infant mortality rate of 7; Minnesota's target rate is 6.

Why should the state try to exceed federal standards? "Because we think we can," replies Carolyn McKay, M.D., director of Maternal and Child Health at Minnesota's Department of Health. In fact, other countries have already matched or outdone the U.S. goal. America's year 2000 infant mortality goal of 7 is equal to the 1988 rates of Canada, Switzerland, and Ireland, but is higher than the 1988 rates achieved by Japan, Finland, and Sweden.<sup>3</sup> Japan's infant mortality rate of 5.2 is about half the U.S. rate, which is over 10.<sup>4</sup>

### Prenatal Care Initiative

Providing the impetus to reach Minnesota's year 2000 goals is the Prenatal Care Initiative (PCI), a statewide effort to get more prenatal care services to low-income women, who tend to be at higher risk of delivering premature, low-birthweight infants. In 1986, Minnesota's overall low-birthweight rate was 5.1 per thousand; among the Medical Assistance population it was 14.3 per thousand," said Sally Bard, R.N., program specialist in the Maternal Child Health Unit of the Department of Human Services (DHS). According to Metropolitan Council statistics, women who have inadequate prenatal care (i.e., do not enter the medical system in the first trimester of their pregnancies) are 30 percent more likely to have a low-birthweight infant.<sup>5</sup>

Although Minnesota showed ample interest in promoting prenatal care and the birth of healthy babies

before the Prenatal Care Initiative, federal legislation provided the needed catalyst. The federal Omnibus Reconciliation Act (OBRA) passed in 1985 loosened government purse strings, allowing states to raise eligibility for Medical Assistance for pregnant women from 90 percent of the federal poverty level to as high as 185 percent. Although many states adopted an eligibility cutoff lower than 185 percent, Minnesota chose the maximum because the state did not want payment to be a barrier to prenatal care, says Kathryn Lamp, assistant division director for health care management at the Department of Human Services.

When OBRA also extended federal services, especially education and case management, to pregnant women, Minnesota's Department of Human Services set up the

Prenatal Care Initiative Task Force to look at various methods for extending those services within the state. The task force found that low-income women in the state did not have adequate access to prenatal care and did not consistently receive comprehensive care. Concurrently, the Health Plan for the Mothers and Children of Minnesota had identified other inadequacies in the delivery of prenatal care throughout the state. It found fragmentation of perinatal health services, inadequate coordination among care providers, and

inconsistencies across the state in the delivery and levels of care and the knowledge and skills of the providers. These findings led to the creation of the Minnesota Prenatal Care Initiative in July 1988.

Rather than administer the PCI centrally through the health department, as many other states have done with their own programs, Minnesota operates the initiative through the Medical Assistance program in the Department of Human Services, making it available to private-sector physicians as well as public clinics.

The initiative is based on the premise that medical care providers in the private sector and public health providers of preventive services such as community education, outreach, counseling, health education, and nutrition can coordinate their efforts at the community level and reach women who would not otherwise seek sufficient prenatal care, and encourage them to obtain the full range of available services.

Under the PCI, for any pregnant woman receiving Medical Assistance, physicians are reimbursed by the state for filling out a risk-assessment form that determines whether the woman qualifies for enhanced prenatal services.



FIGURE—Source: Minn. Center for Health Statistics

"Physicians had always done a risk assessment in their heads, but to have it formalized was something new," explains Mullett. The risk-assessment form is based on the work of Texas physician Robert K. Creasy, a national leader in preterm birth prevention. Unlike Creasy's current form, which lists only medical problems, Minnesota's assessment tool includes social risks along with medical ones. "We have a greater awareness that we need to look at lifestyle factors and how they affect women during pregnancy," said Mullett, who believes this is a positive outcome of the PCI.

A woman who has a risk-assessment score of 10 or more is automatically eligible to receive enhanced prenatal care, which is reimbursable and includes health and nutrition education, care coordination, and a follow-up home visit. The follow-up visit is seen as a springboard for offering additional or continuing services needed by the mother and baby. According to Lamp, DHS is distributing a new risk-assessment tool that allows physicians to classify a pregnant woman they believe is at high risk, even if she does not score higher than 10.

### *Barriers to Care*

Some physicians are refusing to accept Medical Assistance patients because the reimbursement often does not cover their costs and it involves time-consuming, unwieldy paperwork. "Medical Assistance doesn't pay enough. Besides that, it's too much hassle. You hand in your Medical Assistance claim, and they say, 'You made an error, so we have to reject your form,'" says Barbara Leone, M.D., a family physician who works at St. Paul's Model Cities Health Center, a community health center that provides primary adult, adolescent, and child health services. About 95 percent of Leone's patients receive Medical Assistance.

A shortage of physicians willing and able to provide care to Medical Assistance patients is a significant barrier to care, and DHS is doing what it can to correct the problem, according to Lamp. With the intent of increasing physician compliance with the PCI, the state has increased overall reimbursement to private-sector physicians who care for pregnant women. In addition, physicians can now be reimbursed according to the level of care provided, rather than at a flat rate. A DHS staff member is also available to help doctors' offices and clinics streamline their paperwork and billing.

But even as these efforts gain momentum, many low-income women are unaware that free prenatal services

are available. Prenatal programs scattered throughout Minnesota are working to spread the message, and the DHS-sponsored Minnesota Moms Campaign for Healthier Babies is planning to launch a massive media campaign this winter to stress the importance of early prenatal care.

Ambivalence about the pregnancy is another barrier to prenatal care, according to a recent University of Minnesota study. Betty Lia-Hoagberg of the University of Minnesota School of Public Health and colleagues found that lack of pregnancy planning, failure to recognize the symptoms of pregnancy, and unhappiness or ambivalence about the pregnancy were related to inadequate prenatal care.

The authors write: "The results suggest that many women may be denying or repressing the reality of an unplanned and often unwanted pregnancy. Seeking early prenatal care would only confirm and force them to confront what they did not want to recognize or acknowledge."

Says Leone, "Many of the women don't want to be pregnant. They vacillate about the pregnancy. They wait until they know they can't get an abortion, and then they say, 'Well, I might as well go in and see a doctor now.' It's a self-made barrier."

Unfortunately, the PCI does not specifically address the issue of reaching the women who are unlikely to see an obstetrician early in pregnancy and pulling them into the medical system, says Mullett. This is where she sees community health agencies making a contribution through outreach programs that identify women who would otherwise not seek comprehensive prenatal care.

Recognizing the importance of collaboration of services within communities, in 1988 the state formed the Minnesota Prenatal Care Coordination Project (MPC-CP), whose primary purpose is to encourage cooperation between public and private providers in communities throughout the state. A collaborative effort of the Minnesota Department of Health, the Department of Human Services, the Minnesota Medical Association, and the University of Minnesota School of Public Health, MPCCP provides education to health care professionals regarding the PCI risk assessment form, enhanced prenatal care services, and the use of community resources. Under the auspices of the MPCCP, three perinatal nurse specialists have been assigned to various areas in Minnesota to facilitate local implementation of the PCI.



COURTESY OF JOHN MARTIN WARD/PEPLER CHILDREN'S MEDICAL CENTER



A dysfunctional family also contributes to a pregnant woman's failure to seek medical help. Leone has found that such family problems as alcoholism, physical abuse, and depression can make prenatal care a low priority, because survival needs must be met first.

The barriers to seeking prenatal care are many; for example, Lia-Hoagberg's study found transportation costs and lack of child care made prenatal care inaccessible to many women. Possible solutions to the transportation problem include having social services provide transportation, offering bus tokens or vouchers, and implementing ride-share programs among the clients. Clinics and physician offices can make child care less of a problem by creating children-friendly spaces and promoting networking among women patients to provide child care for each other.

For each creative solution offered, it seems another barrier arises: delayed entry into prenatal care, ignorance about where to seek care, the belief that prenatal care is unnecessary, a lack of trust in the health care system, fear of a punitive response to substance abuse, language barriers, provider insensitivity concerning cultural diversity. Although the list is formidable, the solutions keep coming.

### *Tender Loving Care*

Phillips Tender Loving Care (TLC) is one prenatal program that has leapt multiple barriers to prenatal care for low-income pregnant women. The two-year pilot project was officially initiated in September 1989 to help reduce infant mortality in Minneapolis Phillips neighborhood, which has one of the highest infant mortality rates in the state. Its infant mortality score is 23.9; in the city of Minneapolis, the rate is 12.1. Furthermore, says TLC Executive Director Susan Star, only 30 percent of pregnant women in Phillips receive any prenatal care in the first trimester; citywide, the figure is 57 percent.

"Our goal is to give babies of this neighborhood the best start they can possibly have, and the way to do that is to offer support services to the mom," says Star. "The three components of our program are outreach, education, and home visitation. We identify women who need us through our outreach program, which includes going door-to-door to find women who are not receiving services. We work in a community that is low-income and has lots of street people, mentally ill people, gangs. For our own safety, we are in the process of hiring a security team to canvas with us."

Star says the TLC staff makes an effort to educate women at every opportunity, including at community meetings and celebrations, where TLC sets up informational booths and offers free pregnancy tests.

"Our home visitors are from the same cultural and ethnic backgrounds as those in the neighborhood. I have

home visitors who are African-American, native American, Hispanic, and Southeast Asian, because we are committed to being culturally sensitive," said Star. "Our goal is to empower women. We will assist them in figuring out how to get their needs met with the hope that the next time they have those needs, they can meet them themselves."

TLC is just completing an analysis of the program's success; but even without those results, signs indicate it's working very well, says Star, who points out that TLC's original goal was to canvas at least half the community and help 150 women, and in less than one year, the home visitors covered the entire community twice and provided service to 209 women. Since TLC was initiated, 73 healthy babies and just one low-birthweight baby have been born in the Phillips neighborhood.

The TLC home visitors, who are not medical personnel, help to line up the needed health care and related services through TLC's partnership with 39 local health care facilities and social service agencies. Once a month, TLC holds meetings for these service providers, including such organizations as Abbott Northwestern Hospital, Minneapolis Children's Medical Center, Southside Family Nurturing Center, and City Inc., a social service agency in South Minneapolis.

"We talk about how to provide or improve services to particular clients, whom TLC follows through the pregnancy and up to the first year of the baby's life. The service network provides continuity of service once a participant leaves TLC," said Star. "We're not here to provide medical advice. Our goal is to get pregnant

women hooked up with the services they need."

### *A Rural Perspective*

Many of the barriers to prenatal care and the threats to healthy pregnancies are different in rural areas. "The problems are less marked. We don't have rural ghettos or as high a drug use or as many instances of malnutrition. Rural areas have a lower percentage of women who don't come in for prenatal care. Child care *can* be a barrier in small towns, but it's less likely to be a problem," said family physician Barbara Yawn, who recently conducted a study to evaluate an innovative approach to preterm birth prevention. Her program adapted preterm birth prevention programs developed in university settings and designed for more urban needs, and applied them in a small, rural primary care setting.

The preterm birth prevention program she used in Worthington, Minnesota, emphasized education and reassessment of low-risk women and had as its goal reducing "potentially preventable" preterm births.

"These are not the catastrophes of pregnancy, like the women who use cocaine or those who have severe

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"We've begun to  
recognize that  
someone has to look  
out for our  
vulnerable  
populations. And  
mothers and babies  
are vulnerable."

—Sara Mullett

renal disease," Yawn said, emphasizing some of the differences between her program and the Prenatal Care Initiative: "The PCI looks at high-risk, low-income women in order to intervene with causes of low birthweight among low-income women. It is unnecessary to make socioeconomic distinctions in a small, rural area. All of our pregnant women learn about the signs and symptoms of preterm labor—how to recognize it early so they know whether they need to come in early.

"The PCI does not offer services or education for the women at low risk. In our program, even if a woman is low-risk, she still receives a moderate amount of education, because we know that about 50 percent of preterm births involve low-risk women. However, the low-risk woman does not receive education as intensive as the high-risk client, and her physician visits are not as frequent," Yawn said. Unlike many other programs designed to reduce preventable preterm deliveries, Yawn's does not require a special clinic for high-risk patients; the program can be managed by the family physician.

Yawn's preterm birth prevention program resulted in a 33 percent reduction in all preterm deliveries and a 60 percent decrease in those considered preventable. Yawn stresses a key element to the success of any program, whether it's in a big city or small town:

"What's essential is not just the forms you use or the education you offer but also the enthusiasm and dedication with which health care providers carry out the program."

MM

*Carole Cheely Johnson is a free-lance writer living in Minneapolis.*

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612/339-6900

1300 I Street, N.W.  
East Tower, Suite 480  
Washington, D.C. 20005  
202/962-3850



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# Preterm-birth Prevention

## *A Physician's Perspective*

Barbara P. Yawn, M.D., M.S.

### ABSTRACT

Prematurity and low birthweight are the leading causes of infant morbidity and mortality. Minnesota has developed public and private programs to deal with preterm-birth and low-birthweight prevention. With the new programs have come multiple forms, care delivery systems, and reimbursement schedules. The diversity and multiplicity of programs can be frustrating and confusing for primary care physicians. A better understanding of the goals and components of low-birthweight prevention programs such as the Prenatal Care Initiative and the preterm-birth prevention programs used by many practitioners may facilitate the use of such programs. This article compares and contrasts low-birthweight prevention and preterm-birth prevention.

Low birthweight is not synonymous with preterm birth. Intrauterine growth retardation and preterm births together are the major causes of low birthweight.<sup>1</sup> Approaches to the prevention of the two causes of low birthweight can be quite different, as seen in the programs of Papiernik in France,<sup>2</sup> who developed a program for the prevention of low birthweight, and Creasy in the United States,<sup>3</sup> who has developed preterm-birth prevention programs. In Minnesota the two types of programs have been combined in the Prenatal Care Initiative (see related story, page 25) but not in other preterm-birth prevention programs like those of Group Health and Blue Plus. These differences in definitions and program objectives can lead to confusion about the multiple programs and various assessment forms and reimbursement schedules. Practitioners may lack a clear understanding of why these programs are used, and they may have a sense of frustration that will discourage them from participating in any program. This paper reviews, compares, and contrasts low-birthweight and preterm-birth prevention. If we use information about specific kinds of populations and available resources, it may be possible to develop a stepwise approach to prevention of preterm and low-birthweight babies.

### *Preventable versus Non-preventable*

Preterm-birth prevention programs have been developed to address a specific group of small babies. That group has been called potentially preventable preterm births.<sup>4</sup> The designation of "non-preventable" implies not that the *underlying problem* is not preventable but that the *associated preterm labor or birth*

was not preventable. For example, a preterm birth associated with a large placental abruption is non-preventable since mother and baby will both benefit from immediate delivery of the infant. The fact that the abruption was a result of cocaine use and might have been stopped with recognition and intervention is not considered in the decision about potential preventability. Table 1 is a list of the causes of non-preventable preterm births.

Preventable preterm deliveries include preterm labor associated with treatable causes such as pyelonephritis, idiopathic preterm labor, or that seen with non-catastrophic complications of pregnancy, such as multiple gestation and incompetent cervix. A list of the common causes of potentially preventable preterm labor is presented in Table 2. Preterm premature rupture of the membranes (PPROM) has been included in either group by different authorities. Many cases of PPROM may be due to unrecognized and untreated idiopathic preterm labor. Therefore, some cases of delivery due to PPROM may, indeed, be preventable, whereas others are not.

Why is the distinction between preventable and non-preventable preterm births important? Preterm-birth prevention programs such as Creasy's are intended to deal only with the potentially preventable cases of preterm delivery.<sup>4</sup> In most populations these will represent one-half to three-fourths of all preterm deliveries.<sup>4,5</sup> Both the Group Health and the Blue Plus programs, as well as the one we instituted in our rural practice in Worthington, Minnesota, follow the Creasy model. Other programs, such as the Prenatal Care Initiative, follow the outlines of the programs developed by Papiernik in France. They attempt to deal with



Table 1

**'Non-preventable' causes of preterm births****Catastrophes of pregnancy**

PIH  
 placental abruption  
 placenta previa  
 PPRM  
 chorio-amnionitis  
 trauma

**Planned early deliveries**

diabetes mellitus  
 maternal cardiovascular disease  
 maternal renal disease  
 Rh sensitization  
 congenital abnormalities  
 severe IUGR

Table 2

**'Potentially preventable' causes of preterm births**

Idiopathic PTL  
 Infection  
 Multiple gestation  
 Incompetent cervix  
 Uterine abnormality

some of the causes of preterm births as well as intrauterine growth retardation. For example, these programs are more likely to deal with nutrition, stress, drug abuse, and maternal work. Of course, no program is purely one type or the other, since many incorporate elements of both, depending upon their population and its problems.

Why do practicing physicians need to know about the different types of programs? Deciding which problems are most relevant to your population and the resources that you have available can help you decide which program to institute first. An ideal solution is to incorporate all elements of both programs immediately, but practical considerations may make this impossible.

**Preterm-birth Prevention**

Preterm-birth prevention programs are based on the principle that we can rarely prevent preterm labor, but through early recognition, careful diagnosis, and aggressive treatment, we can prevent preterm deliveries in women with preterm labor.<sup>6</sup> The components of the prevention pro-

gram reflect this basic goal.

**Education**

Education is the single most important element of preterm-birth prevention. Preterm labor is often subtle and insidious. Without education about the warning signs and the lack of pain associated with preterm labor, many women fail to recognize what is happening and may appear for medical attention only after preterm labor is well-established with cervical dilation of 4 cm to 5 cm and marked effacement of the cervix. By that time, treatment to stop labor is difficult. The warning signs and symptoms for preterm labor are detailed in Table 3.<sup>7</sup>

Patient education is effective. In our work in a rural community, women who were educated about preterm labor had a 95% chance of being good candidates for tocolytic therapy when they presented in preterm labor. Prior to the educational intervention, only 57% of patients with preterm labor were candidates for tocolytic therapy.<sup>4</sup> Freda et al. have shown significant improvement in their group of women in Brooklyn, New York, as well.<sup>8</sup> Patients must receive education that is appropriate to their reading abilities, cultural background, and intellectual capabilities. Frequent reinforcement and repetition of the same information from multiple sources is helpful.

Education is necessary for the health care community as well as the patients. As Iams points out, physician inertia may be one of the greatest barriers to preterm-birth prevention.<sup>9</sup> Physicians and nurses must know that preterm labor is different from term labor. When called by a woman having signs or symptoms medical personnel must recognize that preterm labor is a part of the differential diagnosis and that it cannot be diagnosed over the telephone. Braxton Hicks contractions are a diagnosis of exclusion.<sup>10</sup>

The education of all the direct care providers (obstetricians, family physicians, and nurses) will not assure the success of a preterm-birth prevention program. Receptionists, telephone operators, and even school principals can obstruct the operation

of a program by taking messages or by blocking a pregnant student's access to medical care.<sup>4</sup> In the best programs, every person associated with any facet of health care will know about preterm labor. Table 4 lists the types of people who need to have this knowledge. Preterm-birth prevention requires a team approach to the patient and her family.

**Risk assessment**

Risk assessment is not a good tool to identify the women who will deliver preterm babies, but we currently have no better tools or tests. Under the best circumstances, most risk screening tools correctly identify only 30% to 65% of women (Table 5)<sup>11</sup> who will have preterm labor or potentially preventable preterm births. By increasing the length of the risk assessment form, it is possible to include more women in the high-risk category who will have preterm labor (increase the sensitivity) but many more women

Table 3

**Warning signs of preterm labor**

Backache—below the waist  
 Pelvic pressure  
 Uterine tightenings  
 Menstrual-like cramps  
 Increased vaginal discharge—especially if blood-tinged  
 Uterine contractions—may be painless

Table 4

**Whom to educate—health care workers**

1. High-risk situations  
ER, OR, and ICU personnel
2. High-frequency situations  
PHN, school and factory nurses, school principals, WIC personnel
3. Potential facilitators/barriers  
Receptionists, telephone operators, X-ray and laboratory personnel, housekeeping personnel, hospital administrators
4. Information sources/community ambassadors  
"Pink ladies," hospital board members, any hospital or clinic employee

Table 5

*Percentage of PTL patients identified as high-risk (same system)\**

|             |               |
|-------------|---------------|
| 65% of PTL  | San Francisco |
| 45% of PTL  | Ohio          |
| <50% of PTL | Texas         |
| 45% of PTL  | Philadelphia  |
| 48% of PTL  | Worthington   |

\*Risk assessment tool is only a guide.

### Treatment

Treatment in a preterm-birth prevention program implies treatment of preterm labor and any identifiable reversible causes of preterm labor. The first step in treatment of any problem is diagnosis of that problem. The diagnosis of preterm labor is simple in the woman who is having painful contractions every 2 to 4 minutes and who has a thin, well-effaced cervix that is 5 centimeters dilated. While the diagnosis may be easy, successful treatment at this late stage is difficult. Treatment is most likely to be effective in women who are treated much earlier in their preterm labor. It is the diagnosis at an earlier stage of preterm labor that is controversial.

We have a definition of term labor, so why not use it for preterm labor also? Because the diagnosis of term labor requires cervical change, some physicians are reluctant to await cervical change before initiating treatment for preterm labor, preferring to treat on the basis of contractions alone. Unfortunately, this will demand the treatment of women with contractions who do not ever develop any cervical change and who will not deliver as a result of those contractions. We thus expose as many as 2% to 5% of pregnant women to unnecessary tocolysis.<sup>12</sup> Because these drugs rapidly cross the placenta,<sup>13</sup> we are also unnecessarily treating 2% to 5% of babies with these drugs. Use of the definition of preterm labor presented in Table 6 can help physicians detect the subtle changes seen in early preterm labor and prevent unnecessary treatment.<sup>4</sup>

Tocolysis is the backbone of preterm labor treatment. However, a fluid bolus of 200 cc may be helpful in women being assessed for possible preterm labor. If preterm labor is diagnosed, tocolytic medication should be given immediately. Every physician and hospital must have the capability to begin tocolytic treatment. Even if the woman is to be transferred to another institution, the hour or two required to complete that transfer can be critical. Evaluation of preterm labor should be undertaken with the same sense of ur-

Table 6

### Definition of preterm labor\*

1. Gestational age 20 to 36 weeks, **plus**
2. Documented uterine contractions (4/20 min or 8/60 min), **plus**
3. (a) Ruptured membranes, **or**  
(b) Intact membranes and cervical dilation >2 cm, **or**  
(c) Intact membranes and cervical effacement >80%, **or**  
(d) Intact membranes and cervical change during observation.

The diagnosis of preterm labor requires 1 and 2 plus a, b, c, or d.

\*From Yawn BP, Yawn RA. Preterm birth prevention in a rural practice. JAMA 262:230-233, 1989. Copyright 1989, American Medical Association.

who will not experience problems will also be included (decreased specificity). The compromise that appears to be reasonable for most practices is to keep the risk assessment form short, to realize that it is only a poor-to-average tool at best, and to provide at least some education and services to low-risk women as well.

The many variations of the risk assessment form can be helpful in the care of different groups of women and in research settings, but the sheer number of these forms may lead to undue frustration among practicing physicians and nurses. The risk assessment form for low-birthweight prevention programs will be different from the preterm-birth prevention risk assessment forms. It will include factors that increase risk for low birthweight but have not been shown directly to lead to "preventable preterm births." Therefore, assessment tools for programs such as the Minnesota Prenatal Care Initiative will be longer and include factors such as weight gain, drug use, maternal stress, and working conditions. While these are very important factors, they have not been a part of traditional physician care and are often difficult to measure and interdict. The worth of nutrition programs like WIC is well proven,<sup>1</sup> and the gradual increase in low-birthweight babies in France as pregnant women have worked heavier schedules suggests that a reduced workload may be effective.<sup>1</sup> Program interventions such as these will require national policy changes.

gency and the same sensitivity to the patient's feelings that are used to evaluate chest pain to rule out myocardial infarction. We do not yet have all the sophisticated armamentarium in preterm labor that is used to evaluate chest pain. But remember that 25 years ago, coronary care units were rare outside academic institutions.

Every physician should become comfortable with at least one tocolytic medication such as terbutaline or magnesium sulfate and should be able to start therapy while arranging transport or waiting for the blizzard to abate.<sup>14</sup> If you will be managing preterm labor completely, including recurrent preterm labor and advanced preterm labor, it is important to be familiar with several types of medications, including beta sympathomimetic drugs, magnesium sulfate, and prostaglandin inhibitors. The use of calcium channel blockers appears to be appropriate only in a research setting.<sup>14</sup> Tocolytic medications are given in a variety of ways, including orally, intravenously, subcutaneously, and through the use of constant infusion pumps. Aggressive and effective treatment can require the use of multiple medications in sequence, or (rarely) in combination, and by multiple routes in any single patient.

*Continued*



## Low-birthweight Prevention

Programs that are more appropriate for groups of women at high risk of multiple social and medical complications of pregnancy include broader educational objectives than the simpler preterm-birth prevention program. Many of the causes of preterm birth listed originally as non-preventable fall under the purview of low-birthweight prevention programs: diabetic complications, maternal stress, maternal nutrition and intrauterine growth retardation, drug abuse, and maternal infections such as gonorrhea.<sup>2</sup> Identification of these additional risk factors requires more in-depth risk assessment. This can be done with every woman or for only a portion of your population believed to be at increased risk.

Specific educational programs aimed at nutrition, drug use, or the importance of adequate prenatal and infant care can then be provided. These broader intervention programs are being employed in many urban<sup>9</sup> and some rural communities in the South.<sup>15</sup> Programs of this type have been successful in France.<sup>2</sup> Such programs require participation of several providers and agencies.

## Summary

Low birthweight is a major determinant of infant mortality in the United States. Infants weighing less than 2,500 g are 40 times as likely to die in the first week of life and four times more likely to die in the first year of life.<sup>1</sup> Even with the marked improvements in infant survival due to neonatal intensive care, preterm and low-birthweight babies have high rates of morbidity. The care of 3% of newborns consumes nearly 50% of all health care dollars devoted to the care of newborns. It is estimated that in 1988 the lifetime cost for special care for handicapping conditions associated with preterm and low-birthweight infants is \$400,000 extra per child.<sup>16</sup> These children consume vast public resources; may reduce productivity of their working parents; may never join the labor force or pay taxes; cause great pain and personal suffering to their parents, siblings and grandparents; and

cost all of us millions of dollars.

We can prevent preterm births and decrease the number of low-birthweight babies.<sup>2,4,7,17</sup> But currently in Minnesota we have multiple programs with many and varied requirements of the primary care providers. Large variations in risk assessment forms for preterm-birth prevention make little sense since they are at best only moderately useful tools. The addition of low-birthweight prevention seems appropriate for at least the high-risk population. Fortunately, our risk assessment tools for these additional factors such as undernutrition, increased stress, and drug use may have a better predictive value.

Every physician can incorporate preterm-birth prevention into her or his practice with minimal difficulty. The tools for risk assessment and patient and provider education are available. The time requirement for start up of such a program is less than 20 hours, and only three to four hours of that is physician time. Maintenance time will depend upon the number of deliveries you do and the patient population you serve. The savings in costs to your patients and taxpayers can be tremendous. The time savings for you can also be large, since you will not have to care for tiny babies or agonize over the minutes or hours it takes a transport team to arrive and transfer that 28-week infant you had to deliver.

Implementation of low-birthweight prevention programs may require more time and a larger team of care providers. The Department of Human Services has consultants, educational programs, and curricula to help institute the broader low-birthweight prevention programs.

Only through education and action of all physicians who care for pregnant women can we hope to make a significant impact on our most damaging complications of parturition—prematurity and low birthweight.

MM

*Barbara Yawn is currently a Bush Fellow in clinical research design and statistical analysis and editor of the Country Doctor, a newsletter for rural physicians.*

## Acknowledgment

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# Medicare

## *The Reasonable and Necessary Exclusion*

Thomas M. Recht, M.D., and Steven W. Richards, M.D.

The original 1965 legislation that established the Medicare program included a category of service for which Medicare coverage was not to be provided. This category was called the medical necessity exclusion or the "reasonable and necessary" exclusion.

Section 1862(a) (1) of the original Medicare law provides that "No payment can be made under either the hospital insurance or supplementary medical insurance program for . . . items and services which are not reasonable and necessary for the diagnosis and treatment of illness or injury or to improve the functioning of a malformed body member . . ."

This exclusion may apply to services that otherwise would be covered if the circumstances were different. The following examples illustrate several types of Medicare coverage denials under the reasonable and necessary exclusion.

**Frequency:** Nursing home visits are normally covered under Medicare but would be denied if they were provided more often than once per month without established medical need.

**Investigational:** Procedures that are currently designated as investigational are not covered now but may be at some point in the future. CAT scans and heart transplants are examples of procedures that were at one time denied on this basis. Chelation therapy is an example of a service currently denied because it is considered investigational.

**Diagnosis-related:** Even though a CAT scan of the head is now commonly covered under Medicare, it would not be covered for a diagnosis of cataracts.

**Level of care:** Comprehensive office visits would not be covered at the comprehensive level if the physi-

cian used that level for a routine follow-up service. In this instance, the service would not be denied, but rather, the level of care would be adjusted to the appropriate level for the service provided.

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### "Medical necessity denials should not be confused with categorical denials."

**Concurrent care:** Concurrent care or same-day care by more than one physician may be covered. However, same-day care would not be covered if multiple physicians in the same specialty were addressing the same problem.

Physicians should keep in mind that these examples are not the entire list of potential medical necessity denials, and with regard to any service that risks medical necessity denial or reduction, it is to the physician's and patient's advantage to document why the frequency of service was necessary, why the level of care was required, or why multiple physicians were needed to care for the patient. Doing so may permit Medicare to cover the service as billed.

### *Categorical Denials*

Medical necessity denials should not be confused with categorical denials. A categorical denial is the denial of a service that is statutorily not covered under Medicare regardless of the circumstances. Examples of services that are never covered include routine physical examinations, routine eye

exams and eyeglasses (except for the post-cataract surgery patient), hearing aids and hearing aid exams, immunizations (except pneumovax), cosmetic surgery, routine dental work, self-administrable drugs, and personal comfort items.

What is the physician's obligation in connection with services that he or she knows or suspects will be subject to medical necessity denial or reduction? To receive his or her charge from a patient who has had a service payment denied or reduced, the physician must have made *written* disclosure of the potential denial or reduction to the patient *before* rendering the service. In addition, the disclosure must specify the service that could be denied or reduced for medical necessity reasons and must include the physician's reason for believing that Medicare may deny or reduce the service. Finally, the disclosure must include the patient's agreement to pay for the service in the event that it is denied or reduced.

The physician has full appeal rights concerning medical necessity denials and reductions regardless of whether the original claim was assigned or non-assigned. The appeal period is six months from the date of the denial or reduction notice. Refunds are not required if the appeal is made within 30 days of the notice. If the result of the appeal affirms the original decision of the Medicare carrier, a refund of the patient's payment would be required at that time.

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*Thomas Recht is the medical director at the Travelers Medicare office in Bloomington.*

*Steven Richards is the Medicare medical director at Blue Cross and Blue Shield of Minnesota.*



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# What Does a New Physician Cost?

*Daniel K. Zismer, Ph.D., Davis D. Fansler, and Leigh Hantho*

When patient demand exceeds physician supply, when call schedules are over-burdened and days off are few, little regard is paid to the costs of adding a new physician to a busy medical practice. The primary objective is relief. But the benefits of a reduced workload aside, the true cost of employing additional physicians needs to be viewed under a bright light. Too often, medical groups add physicians without adequately considering working capital requirements and return on their investment.

Before analyzing the cost of adding a physician, it is prudent to examine several problems related to working capital that are typically associated with practice expansion. First, the financial break-even point is often incorrectly defined as the point at which the new physician's direct expenses (salary and benefits) equal the cash he or she is bringing into the practice. However, all incremental and start-up costs must be considered as well.

Second, medical practices frequently offer their new physicians shareholder or partnership status prematurely. When working capital invested to fund the new physician to a true break-even point is not fully recovered before the physician is offered equal access to practice profits, the group is left with an unrecovered investment. Moreover, the new shareholder may be at financial risk as well if the new practice is not developed to the point where it can adequately support its operating costs.

## **Negative Return on Investment: A Case in Point**

Not all costs associated with the addition of new physicians are clearly

quantifiable. In addition to the working capital required to cover the physician's income and benefits, there are one-time expenses (e.g., recruiting costs, moving expenses, and new office furniture and equipment) as

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“The true cost of employing additional physicians needs to be viewed under a bright light.”

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well as incremental operating expenses associated with increased staffing, insurance, supplies, etc. Less visible, but equally important, are the costs associated with the reduced productivity of a practice's established physicians, who initially must support the new physician's fledgling practice. These costs are difficult to quantify, but they are very real and deserve careful consideration.

A case in point is Ob/Gyn Medicine Associates, a fictitious practice with six general ob/gyns. The group, which needs another physician, has hired a recruiter and has developed a compensation package.

The new physician will receive a starting base salary of \$110,000 with benefits totaling another \$26,290 per year. The practice will cover the new physician's \$25,000 professional liability insurance. Recruiting and moving costs are expected to be an additional \$35,000, and incremental staffing costs (i.e., 1.60 FTE additional support staff) are estimated at \$56,700 per year. The cost of furniture, equipment, and supplies is

projected to be \$8,600. A \$10,000 bonus is also available if the physician's first-year gross charges meet or exceed \$275,000 (Table 1).

Equity in the practice is offered to the new physician at the end of her first year at a cost equal to a pro rata portion of the accounts receivable, payable over five years out of future physician earnings, with no interest charged.

In the first year, the physician's office and hospital production is \$280,000, of which approximately \$240,000 is available in potential collections after contractual allowances and bad debt. During that first year of the new associate's employment, however, only \$178,500 is actually collected because of delayed payments due to the practice's early stage of development.

At the end of year-one, the physician elects to become a partner and exercises her five-year buy-in option for \$132,000, payable at an annual rate of \$26,400. Each of the six physician partners will realize \$4,400 per year of additional taxable income through the sale of a portion of practice equity. At this time there is a \$93,090 working capital deficit that must be covered by a reduction in the shareholders' income and/or by the creation of debt (Table 2). (Most groups choose decreased shareholder income rather than short-term borrowing to fund the addition of new physicians.)

With the execution of the shareholder agreement, the new shareholder is brought into the group's income distribution formula, which distributes 40% of the practice profits equally among the shareholders and distributes the remaining 60% based upon individual physicians' production.

*Continued*



Table 1

*First-year physician costs*

| Categories                          | Costs     |
|-------------------------------------|-----------|
| <b>Direct costs including bonus</b> |           |
| Salary                              | \$110,000 |
| Corporate FICA and Insurances       | 3,850     |
| Health and Disability Insurance     | 5,080     |
| Retirement Contribution             | 11,000    |
| CME                                 | 3,000     |
| Auto Allowance                      | 3,360     |
| One-time bonus                      | 10,000    |
|                                     | \$146,290 |
| <b>Indirect overhead</b>            |           |
| Professional liability insurance    | 25,000    |
| Staffing costs                      | 56,700    |
| One time costs                      | \$81,700  |
| Recruiting and moving               | 35,000    |
| Office furniture and supplies       | 8,600     |
|                                     | \$43,600  |
| Total first-year cost potential     | \$271,590 |

Table 2

*Working capital analysis: year-one*

| Categories                               | Costs      |
|------------------------------------------|------------|
| Physicians total billings—year-one       | \$280,000  |
| Total potential collections <sup>1</sup> | 240,000    |
| Fees collected in year-one <sup>2</sup>  | 178,500    |
| Physician direct costs including bonus   | <146,290>  |
| Incremental overhead                     | <81,700>   |
| One-time costs                           | <43,600>   |
| Working capital balance <sup>3</sup>     | <\$93,090> |

Notes: 1. Potential collections include all contractual adjustments and allowances for bad debt. 2. Fees collected in year-one represent the portion of total billings collected less the development of accounts receivable in year-one. 3. Excluding any additional working capital.

### *The Analysis*

The \$93,090 remains to be recovered, and the implications this arrangement holds for the new shareholder need to be considered. In the second year, the new shareholder generates billings at a rate equal to 80% of the other shareholders' average (about \$450,000), but shares equally in all operating costs. Total practice receipts for all seven physicians in year-two equals \$3,144,000. After all overhead is paid, \$1,287,410 (41%) is available for distribution to the physicians. Forty percent of the profits are distributed equally, with the new shareholder's allocation being \$73,566. The balance is distrib-

uted based upon individual production, giving the new physician an additional \$90,876 (11.76% share), for a total compensation of \$164,442 (including benefits). After an adjustment of \$26,400 is made on a pre-tax basis for the first-year portion of the buy-in, the new shareholder's net income is \$138,042, nearly 6% lower than her first-year compensation.

One could argue that there was no reduction in compensation, since a portion of the new shareholder's income was simply deferred through the purchase of accounts receivable. Moreover, the purchase price paid to the six shareholders might be viewed as a partial return of the working

capital they invested. While these arguments are somewhat valid, the new physician does sustain a net reduction in income by executing the shareholder agreement at the end of year-one (a point where a fully productive practice is not yet assured), and monies paid to shareholders for accounts receivable should not be viewed as a contribution to working capital. The transaction is an exchange of cash for practice assets.

The new physician's contribution to fixed overhead has not been addressed with the exception of those fixed costs mentioned earlier; however, it is assumed that the group was properly sized relative to its fixed overhead before the new physician was added.

The \$93,090 in working capital remains unrecovered in year-two and beyond if the shareholder option is executed as presented.

### *Compensation Packages*

This case identifies the potential pitfalls of typical physician employment arrangements, and the problems are magnified when more than one physician is added in a short time period. An alternative model would balance the need to recruit and retain physicians with the group's need to recover its working capital investment over a reasonable time period. Presuming recovery of the working capital investment was the objective, the new physician in our case would receive a guaranteed base salary and a production bonus. This compensation should provide the new physician with sufficient incentive to remain productive, while at the same time allowing the group sufficient financial margins to recover the working capital invested. The design of such a program requires the development of three-to-five-year projections addressing progressive increases in production, associated start-up and operating costs, as well as the cash flow implications dictated by the group's payer mix and collection process. New associates who argue that this approach is unfair should be

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# A General Accounting

*Richard B. Tompkins, M.D.*

As 1990 draws to a close, I thought it would be useful to review MMA's major achievements for the year and to examine some of our primary objectives for 1991.

In 1990, we fought for fair and equitable reimbursement for Medicare and Medical Assistance, proposed rural health initiatives, urged revision of CLIA '88, and drafted a report that lists the medical procedures that should be included in any health insurance plan.

## *Medicare Reforms*

This fall, I was among a group of MMA physicians who went to Washington, D.C., to urge Congress to preserve Medicare reforms. Several of the proposals Congress was considering during budget reconciliation threatened to undermine physician payment reform. After years of fighting for reform of the geographic disparities in Medicare reimbursement, we didn't want to lose in the final moments of the budget summit.

Despite our efforts and support from Minnesota's congressional delegation, Congress rejected the summit agreement and passed a budget bill that will cut \$8.7 billion from physicians' Medicare payments over the next five years. Fortunately, the cuts were not as severe as those originally proposed by the Bush administration. In addition, Congress moderated the effects of balance billing limits on primary care physicians by raising the floor on prevailing charges for primary care services to 60 percent of the national average prevailing charges, and for 1991 only, raising the balance billing cap to 140 percent of the Medicare allowable charge or the physician's MAAC, whichever is lower, for evaluation and management services.



"The MMA will continue to rally other states to join us in working for fair reimbursement."

Increasing Medicare reimbursement to adequate levels and assuring that geographic practice cost indices are appropriate will continue to be priorities in 1991. As co-founder of the 34-state Geographic Coalition, the MMA will continue to rally other states to join us in working for fair reimbursement.

## *CLIA '88*

The MMA was part of a highly successful effort to call attention to the disastrous effects the Health Care Financing Administration's proposed laboratory regulations could have on laboratories in physician offices and smaller hospitals. While we were in Washington, D.C., we secured the support of Sen. Durenberger for legislation that would amend the Clinical Laboratory Improvements Act of 1988 to reflect physician and hospital concerns. Our hard work, combined with that of the AMA and physicians around the country, clearly paid off. HCFA received 50,000 comments during the 120-day ex-

tended comment period on regulations to implement CLIA '88. As a result, Health and Human Services Secretary Louis Sullivan and HCFA Director Gail Wilensky are now indicating that major portions of the CLIA '88 regulations will have to be rewritten. Dr. Wilensky indicated to the AMA that there is a need to reassess the levels of testing, personnel standards, and ways to accommodate and encourage evolving technologies. Current estimates suggest that the final rule will not be completed for eight to 12 months.

## *The State Legislature*

The MMA won some tough uphill battles during the 1990 session of the Minnesota Legislature. Although lawmakers were determined to cut \$146 million from the state budget, the MMA was able to gain an increase in Medical Assistance reimbursement and funding for rural health initiatives.

The 1990 Legislature increased Medical Assistance (MA or Medicaid) reimbursement for providers of obstetric and pediatric services by 15 percent. This \$2.5 million increase affects primary care providers as well as obstetricians. Although the relatively modest increase won't solve our health care crisis in rural Minnesota, it's a good beginning. Legislators are listening to our message. They realize that inadequate MA reimbursement is causing serious access problems for MA recipients throughout Minnesota.

Many of the MMA's rural health initiatives were passed in 1990. Despite the emphasis on cost-cutting, the Minnesota Legislature approved \$1.4 million in funding for programs for rural physicians, rural nurse scholarship programs, hospital grants, and an increase in reimburse-



ment for training emergency medical technicians. We are beginning to see the fruits of our labor as some of these new programs take effect.

- A loan forgiveness program was created for medical students who go on to practice in a rural area for a minimum of three years. I encourage fourth-year medical students or residents who are interested in a rural practice to participate in this new program.

- A summer high school intern program was created and received \$100,000 in funding. This program targets students between their junior and senior years in high school, when they are just beginning to make career decisions. The MMA must submit a list of clinics interested in participating in the program to the Minnesota Department of Education by January 31, 1991. If your clinic would like to have a high school student work as an intern next summer, please call

Wendy O'Donnell at the MMA, 612/378-1875.

- The Rural Physician Associate Program received a \$200,000 increase in funding, and the number of participants was increased from 25 to 30.

### *Looking Ahead*

The MMA has laid a solid foundation to build upon during the longer budget session that will begin next month. When the Minnesota Legislature reconvenes, we will continue to press for equitable reimbursement for services to Medical Assistance patients, and we will explore the concept of creating an office of rural health. In addition, we will grapple with the problem of providing health care for the uninsured and underinsured in Minnesota. The MMA Medical Benefits Task Force has prepared a draft report listing essential medical services that should be

included in any health insurance plan. This draft report has been presented to the Health Care Access Commission and to the various groups that are represented on the task force. At this point, the document is not final but is meant to serve as a springboard for discussion. The task force will revise the report to reflect the comments it receives and will submit its final report to the MMA Board of Trustees for approval next month. I will discuss the task force report in more detail in the January issue of *Minnesota Medicine*, which will include special reports on health care access reform and defining essential medical benefits.

The MMA also will be meeting with Governor-elect Arne Carlson to discuss these and other health care issues and will pay particular attention to the new appointments made to the state departments of health and human services. MM

## Cost of Adding New Physicians

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reminded that the group is at risk for the new physician's base compensation and all related costs during the initial contract period, while the new associate assumes no risk.

Compensation options and buy-in opportunities can be offered at various stages in the contract period. In this case, offering shareholder status before the end of year-three would likely leave a portion of the working capital investment unrecovered. While this may be unavoidable, it is critical to understand the risk at the start of the transaction. An inadequate understanding of this problem has led more than one group to the brink of bankruptcy.

If a group is willing to recover its capital invested to fund new physicians to the break-even point, it may want to consider the potential for a return on the investment. Generating profits from new physicians is, in part, a philosophical question as well as a market-related consideration. Some physicians favor generating profits from new associates, while others are not so inclined. Highly

successful groups with a large market share can more easily offer protracted buy-in plans to new associates, and thereby generate a reasonable return on their investment for each physician added. Groups with a smaller market share are less able to delay offering a new physician the opportunity to buy into the practice and still remain competitive in recruiting.

Medical groups considering adding new physicians need to plan for the creation of sufficient capital to fund physician recruiting without inappropriately compromising their shareholders' income or their group's balance sheet. MM

*Davis D. Fansler and Daniel K. Zismer, Ph.D., are principals in the firm of Partners Medical Management, Ltd., a Minneapolis-based regional health care consulting firm.*

*Leigh Hantho is senior vice president, Physician Services, Harris Methodist Health Center in Fort Worth, Texas.*

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## People and Places Making Medical News

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#### CME Reaccreditation

The Accreditation Council for Continuing Medical Education (ACCME) surveyed the Minnesota Medical Association (MMA) and awarded accreditation for two years as a sponsor of continuing medical education for physicians.

ACCME accreditation seeks to assure both physicians and the public that continuing medical education activities sponsored by the MMA meet the Essentials for Accreditation standards as specified by the ACCME, which is sponsored by the American Board of Medical Specialties, the American Hospital Association, the American Medical Association, the Association for Hospital Medical Education, the Association of American Medical Colleges, the Council of Medical Specialty Societies, and the Federation of State Medical Boards.

### People

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#### Margarat Hay Edwards Award

B. J. Kennedy, M.D., Regents' professor of medicine and Masonic professor of oncology at the University of Minnesota, was awarded the Margaret Hay Edwards Achievement Medal at the 24th annual meeting of the American Association for Cancer Education October 5. The award recognizes Kennedy's contributions to cancer education. He pioneered the evolution of the subspecialty of medical oncology.

#### Gillette Children's Director

Pediatric orthopedic surgeon James Gage, M.D., accepted the position

of medical director at Gillette Children's Hospital in St. Paul. In this position, Gage will manage patient care, education, research, medical administration, and outreach and will continue to practice orthopedic surgery.

Gage, a native of Minnesota, completed his residency training at the Veterans Administration Medical Center in Minneapolis. He practiced general orthopedics in the greater metropolitan area for five years before taking an academic position as a pediatric orthopedist at Newington Children's Hospital in Connecticut, where most recently, he served as director of the Cerebral Palsy and Kinesiology Services.

#### HCMC Chief of Orthopedics

Richard Kyle, M.D., is the new chief of Orthopedics at Hennepin County Medical Center. Kyle, who has been at HCMC since 1978, is now responsible for hiring new staff, overseeing the education of medical students and residents, and overseeing the care of clinic and OR patients.

Kyle, a nationally recognized hip surgery/replacement specialist, is a member of the Hip Society, an exclusive organization of hip specialists who have made significant contributions in their field. He will also be president of the Orthopedic Trauma Association of the American Academy of Orthopaedic Surgeons next year.

#### Minnesota Advisory Council Chair

Gov. Rudy Perpich appointed Tim Crimmins, M.D., chairman of the Minnesota Transportation Safety Advisory Council. Crimmins, who specializes in emergency medicine at Hennepin County Medical Center, will be chairman through January 1992.

#### Drug Post Opens

Jan Smaby, director of Minnesota's Office of Drug Policy, is stepping down to become a senior vice president at KTCA-TV in January. Since she accepted the directorship in August 1989, Smaby has been assessing the extent of drug and alcohol problems in Minnesota as part of an effort to create a state-wide strategy for dealing with drug abuse.

#### New AAFP Board Member

O. Guy Johnson, M.D., of Stillwater, was elected to the board of directors of the American Academy of Family Physicians, the nation's largest medical specialty society. The election took place October 8 at the organization's annual meeting in Dallas.

Johnson, a family physician with MinnHealth, P.A., in St. Paul, has served as president, vice president, and chairman of the board of the Minnesota Academy of Family Physicians. He is currently a clinical associate professor at the University of Minnesota and a member of the Board of Trustees of HealthEast.

During his three-year term on the AAFP Board, Johnson will represent more than 69,000 family physicians, residents, and medical students.

#### Jamieson Drops Legal Actions

Stuart Jamieson, former chief of cardiovascular surgery at the University of Minnesota Hospital, dropped his defamation suit regarding an article in the Minneapolis *Star Tribune*, which reported that the university was investigating him for allegedly ordering a surgeon to operate on a dead patient.

Shortly after the article was



published in August 1988, the *Star Tribune* retracted it. Jamieson later filed a defamation suit against the anonymous sources, who he said gave inaccurate information to the newspaper.

According to his attorney, Terence Fruth, Jamieson settled out of court with the University of Minnesota in July. The terms of the settlement are confidential, but Fruth said, "Dr. Jamieson is very happy with the settlement, and he's gone on to the University of California, where he has started a successful transplant program."

Fruth refuted recent newspaper accounts that Jamieson settled with the university for \$118,000.

### **New AIDS Policy Coordinator**

Mary Alice Mowry, formerly program director for the Minnesota AIDS Project, has been appointed AIDS policy coordinator at the Minnesota Department of Human Services. The 1990 Legislature approved the position to administer a new HIV-insurance program and other services.

In addition to her work with the Minnesota AIDS Project, Mowry has held positions in child protection services, family violence programs, and education consulting projects in Minnesota and Wisconsin.

### **Dole to Head Red Cross**

Elizabeth Hanford Dole in October announced her resignation as secretary of Labor to become president of the American Red Cross. As president, she will be in charge of the national organization, which has 23,000 staff, a billion-dollar budget, and more than a million U.S. volunteers.

### **Places**

#### **Mayo Alzheimer's Grant**

The Mayo Foundation has received a \$1.5 million grant from the National Institutes of Health/

National Institute on Aging to officially designate Mayo as an Alzheimer's disease research center.

"This is a significant award because it recognizes our commitment to research in aging and Alzheimer's disease," said Mayo Clinic epidemiologist Leonard Kurland, M.D., the project's principal investigator.

With the receipt of this five-year grant, Mayo joins about 20 medical facilities in the United States with this research designation. The award will allow Mayo to continue to serve as a regional focal point for the recruitment, diagnosis, and treatment of patients with Alzheimer's disease.

The grant will support such efforts as drug research, clinical care research, and educational programs for patients and medical professionals. Alzheimer's disease currently affects more than 2.5 million people in the United States, and these numbers are expected to rise as the nation's population ages.

Mayo researchers are currently conducting several clinical and epidemiological studies on normal aging and Alzheimer's disease, including four investigational drug trials and several analyses of the risk factors involved in Alzheimer's disease.

#### **Grants for Minnesota Hospitals**

Abbott Northwestern Hospital of Minneapolis and St. Joseph's Hospital of Mankato are two of 20 U.S. hospitals to receive \$1 million grants from the Robert Wood Johnson Foundation and Pew Charitable Trusts. The five-year grants are intended to allow the hospitals to reorganize the way they deliver care and improve their use of nurses.

#### **United HealthCare's Expansions**

United HealthCare Corp. announced that its majority-owned HMO, Physicians Health Plan (PHP) of Greater St. Louis, Inc., has signed a letter of intent with Care Plus, Inc., to acquire Care Plus's members. Care Plus, an

independent practice association model HMO, has approximately 7,500 members in Missouri. PHP of Greater St. Louis has approximately 32,000 members in the five-county St. Louis metropolitan area, bordering the Care Plus service area.

United HealthCare president and chief operating officer William W. McGuire said he expects a definitive agreement to be reached before year-end. The purchase will be subject to receipt of regulatory approval.

United HealthCare also announced record revenues and earnings for the third quarter and nine months ending September 30, 1990.

Revenues for the third quarter were \$156.8 million, a 48.9 percent increase over the same period last year. Revenues for the nine months ending September 30 were \$437 million, up 43.7 percent from the same period in 1989.

#### **HealthEast Gains**

HealthEast, a St. Paul-based provider of family and acute care health services, reported \$3.2 million in net income for the fiscal year ending August 31, 1990, a dramatic improvement over losses of more than \$21.1 million in fiscal 1989.

"HealthEast has a strategic plan in place, and it's beginning to show positive results," said Timothy Hanson, HealthEast president and chief executive officer. He noted that the organization had actually anticipated a \$6.2 million net loss for fiscal 1990.

### **Socioeconomics**

#### **AIDS Estimates Lowered**

A report released in October by the Minnesota Department of Health estimates that between 4,400 and 17,700 Minnesotans, most of them gay or bisexual men, are infected

with the AIDS virus. The new numbers are lower than the department's previous estimates of 10,000 to 30,000.

The report estimates that 190 cases will be diagnosed this year in Minnesota, up from 181 last year and 157 in 1988. The report also predicts that 200 to 275 new AIDS cases will be diagnosed in the state next year.

Michael Osterholm, the department's chief of acute disease epidemiology, said the number of new AIDS cases is expected to continue rising for several years, although it might level off sometime after 1992.

### HIV Health Insurance

HIV-insurance applications are now available for Minnesota residents who have lost or who are likely to lose their jobs because of AIDS or HIV-related diseases, according to Mary Alice Mowry, AIDS policy coordinator for the Minnesota Department of Human Services (DHS).

Through this new program, the state pays for private health plan premiums for people who have contracted the human immunodeficiency virus, enabling them to continue coverage under a group or individual health plan. Recent federal regulations require employers to offer terminating employees the opportunity to buy into group plans for up to 29 months following termination.

Expenditures for AIDS-related services administered through DHS amounted to about \$9.5 million over the past two years in state and federal funds, according to Mowry. Services include Medical Assistance, General Assistance Medical Care, AZT and other drug reimbursement programs, and home health care.

### High Score for State Docs

Nearly all the medical care provided to Medicare patients in Minnesota is appropriate, necessary, and of high quality, according to an annual report released this fall by the Foundation for Health Care

Evaluation (FHCE).

In the period from May 1, 1989, to April 30, 1990, FHCE reviewed 19,965 Medicare claims. Only 87 of these claims, less than one-half of 1 percent, were denied.

Of the 2,166 ambulatory surgery and hospital outpatient claims reviewed, FHCE denied only two claims because of a lack of medical necessity or the inappropriateness of setting.

During the report period, FHCE also reviewed 23,415 paid claims involving Medicare inpatient and outpatient services, Medicare affiliated HMOs, and CHAMPUS (Civilian Health and Medical Program of the Uniformed Services in Minnesota). FHCE found only one severity Level III, "a confirmed quality problem with significant adverse effects on the patient"; 15 severity Level IIs, "confirmed quality problems with the potential for significant adverse effects on the patient"; and 21 severity Level I's, "confirmed quality problems without the potential for significant adverse effects on the patient."

### Innovations

#### Micro Pacemaker

Medtronic announced commercial release of the world's smallest cardiac pacemaker, the Micro Minix™. The 17 gram pacemaker is 40 mm high, 32 mm wide, and 7 mm thick.

#### Hope for Infertile Women

A new technique may give hope to thousands of women who are unable to conceive because of blocked fallopian tubes, according to a study reported in the October 24, 1990, *Journal of the American Medical Association*.

The outpatient procedure, known as transcervical balloon tuboplasty (TBT), is similar to balloon angioplasty, a technique used in the treatment of blocked

coronary arteries. According to the authors, blocked fallopian tubes are the primary cause of 25 percent to 30 percent of female infertility.

Of the 77 women who underwent TBT at six medical centers across the country, 92 percent had at least one fallopian tube re-opened. Twenty-three percent had one tube successfully recanalized, while 69 percent had both tubes recanalized.

The noninvasive TBT procedure may be more cost-effective than other procedures such as microsurgical tuboplasty and in vitro fertilization, the authors said.

### Birth After Menopause

Researchers showed that woman age 40 and over can bear children after menopause. Doctors at the University of Southern California fertilized eggs from three donors and implanted them in seven 40- to 44-year-old postmenopausal women, according to a report in the October 25, 1990, *New England Journal of Medicine*. Of the six women who became pregnant, one miscarried, one had a stillborn, and four had healthy babies, including one set of twins.

The main reason older women have a harder time bearing children is because their eggs are deteriorating, not because their uteruses are less capable of bearing pregnancy, the researchers said. Infertility experts said women in their early 40s who are still ovulating but having difficulty getting pregnant might have better chances using donated eggs from a younger woman.

### Male Contraceptives

The World Health Organization has developed two revolutionary methods of male birth control. The first, a reversible vasectomy, is being tested in China and should be on the market in two to three years. The procedure involves injecting the sperm ducts with liquid silicone rubber that forms a plug and stops sperm passage. The



plug is easily removable by making a small puncture in the skin. Ninety-eight percent of the first 12,000 men injected became infertile, and reversals so far have been successful.

The second method involves weekly injections of testosterone enanthate, a synthetic version of the male hormone. The method, which is similar to the female birth control pill, tricks the body into stopping sperm production. In tests so far, the failure rate has been lower than typical failure rates for birth control pills (three per 100) and condoms (12 per 100).

### Lyme Disease Vaccine

Research at Yale University may lead to a vaccine against Lyme disease and syphilis, according to results published in the October 26, 1990, issue of the journal *Science*.

A genetically engineered vaccine proved successful in preventing Lyme disease in mice that were later injected with the Lyme spirochete. According to lead researcher Richard Flavell, the Yale team is optimistic that the vaccine will work in humans. The human vaccine could be available in five to eight years. In addition, the group believes the technique may be successfully used to vaccinate humans against other diseases—such as syphilis—that are also caused by spirochetes.

## Medical Research

### Med School Immunizations

Researchers from the Mayo Clinic and the Minneapolis Veterans Medical Center reported in the October 15, 1990, *Annals of Internal Medicine* that one of four U.S. and Canadian medical schools does not require its students to be immunized. An earlier study showed medical students as the source of 13 percent of reported

measles and rubella outbreaks between 1980 and 1988.

Of 115 medical schools surveyed, not one followed all federal vaccination recommendations against preventable, infectious diseases. Twenty-eight percent of the schools had no immunization requirements for entering medical students, 31 percent had no rubella immunity requirement, 40 percent had no measles immunity requirement, and 44 percent did not require proof of polio vaccination.

"When a medical student or doctor gets rubella and sees a pregnant woman, or child, or elderly patient, the outcome could be deadly," said lead author Gregory Poland, M.D., of Mayo Clinic.

### Cocaine Speeds HIV Growth

University of Minnesota researchers found that cocaine speeds growth of the AIDS virus. Medical School researchers exposed peripheral blood mononuclear cells to doses of cocaine and found that HIV grows as much as three times faster in cocaine tests than in controlled studies. Researchers are conducting further studies using immune cells from drug users to see if the virus grows more easily, said Ronald Schut, M.D., the study's lead researcher.

### Prenatal Cocaine Exposure

The University of Minnesota and other agencies announced plans to begin research on babies born to cocaine users. The University of Minnesota's Institute for Disabilities Studies will collaborate with the Washburn Child Guidance Center of Minneapolis, the Hennepin County Medical Center's neonatal nursery, and Turning Point Inc. in an effort to find ways to alleviate symptoms that result from prenatal exposure to cocaine.

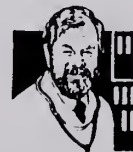
Although little is known about the effects of prenatal cocaine use, studies show that it may lead to premature births, low birthweight, and birth defects. "Cocaine

babies" are also prone to having behavioral problems and learning disabilities, but it is difficult to determine if these problems result from cocaine or the child's living environment after birth. Researchers hope to determine how prenatal exposure affects the child's behavior. To do so they will study three groups: babies of mothers who used cocaine early in the pregnancy, babies of mothers who used cocaine throughout the pregnancy, and babies of mothers who didn't use cocaine but live in the same neighborhood as the cocaine babies.

Travis Thompson, director of the university's Institute for Disabilities Studies, said the research could be of national significance because there are an estimated 100,000 infants and preschoolers in the United States who were exposed to cocaine in the womb. WM

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## *A Calendar of Continuing Medical Education Courses*

*Provided through the MMA Medical Education Subcommittee on CME Resources.* For assistance with scheduling meetings or for information on future medical meetings and CME courses at the state and national level, please contact the MMA office: 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414; 612/378-1875. Information for each entry is arranged by date; name of program; primary sponsor; location; contact person.

### DECEMBER 1990

Dec 6-7 **Cardiopulmonary Intensive Care Conference** Hennepin County Medical Center; Pillsbury Auditorium, HCMC, Minneapolis, MN. CONTACT: Robin Hoppenrath, CME Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2075.

Dec. 6-7 **Management Issues in the Clinical Laboratory** Mayo Medical Laboratories; Hotel 21 East, Chicago, IL. CONTACT: Martha Carey, Mayo Medical Laboratories, 100 First Street SW, Rochester, MN 55905; 800/562-1787.

Dec. 6-8 **Annual Cardiopulmonary Medicine Update** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Dec. 8 **Cancer Pain Initiative** Hennepin County Medical Center; Hyatt Regency Hotel, Minneapolis, MN. CONTACT: Frances Ewing, Registrar, Office of Academic Affairs, HCMC, 701 Park Avenue, Minneapolis, MN 55415; 612/347-2078.

### JANUARY 1991

Jan. 18 **Minnesota Urological Society** Minnesota Urological Society; Hotel Sofitel, Bloomington, MN. CONTACT: Linda Reynolds, Executive Secretary, 6750 France Avenue South, Suite 149, Edina, MN 55435; 612/925-0533.

Jan. 25-26 **Current Concepts of Cardiology for the Primary Care Physician** Abbott Northwestern Hospital; Radisson Arrowwood Inn and Resort, Alexandria, MN. CONTACT: Cathy Kohn, CME Office 14202, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

Jan. 30-Feb. 2 **Thoracic Organ Transplantation** Abbott Northwestern Hospital; Westin La Paloma, Tucson, AZ. CONTACT: Cathy Elmstrom, CME Office 14202, Abbott Northwestern Hospital, 800 East 28th Street, Minneapolis, MN 55407; 612/863-5461.

### FEBRUARY 1991

Feb. 2-8 **Update in Clinical Neurophysiology** Mayo Clinic/ Mayo Foundation; Mayo Clinic/ Mayo Foundation, Rochester, MN. CONTACT: Postgraduate Courses, 200 1st Street SW, Rochester, MN 55905; 507/284-2509.

Feb. 11-15 **Obstetrical Review** Mayo Clinic/ Mayo Foundation; Hyatt Orlando, Orlando, FL. CONTACT: Postgraduate Courses, 200 First Street SW, Rochester, MN 55905; 507/284-2509 or 800/323-2688.

Feb. 15 **Burn Care Update** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Feb. 15 **Minnesota Urological Society** Minnesota Urological Society; Hotel Sofitel, Bloomington, MN. CONTACT: Linda Reynolds, Executive Secretary, 6750 France Avenue South, Suite 149, Edina, MN 55435; 612/925-0533.

Feb. 15-16 **Sexual Attitude Reassessment Seminars (SAR)** University of Minnesota; Program in Human Sexuality, Minneapolis, MN. CONTACT: SAR Coordinator, Program in Human Sexuality, 2630 University Avenue SE, Minneapolis, MN 55414; 612/627-4360.

Feb. 18-22 **Selected Topics in Internal Medicine** Mayo Clinic/ Mayo Foundation; Del Coronado, San Diego, CA. CONTACT: Post Graduate Courses, 200 First Street SW, Rochester, MN 55905; 507/284-2509.

### MARCH 1991

Mar. 1-3 **Neurology in Clinical Practice** Mayo Clinic/ Mayo Foundation; Telmark Lodge, Cable, WI. CONTACT: Postgraduate Courses, 200 First Street SW, Rochester, MN 55905; 507/284-2509 or 800/323-2688.

Mar. 4-8 **Current Concepts in Gastroenterology** Mayo Clinic/ Mayo Foundation; Tradewinds, St. Peters, FL. CONTACT: Postgraduate Courses, 200 First Street SW, Rochester, MN 55905; 507/284-2509.

Mar. 7-8 **Critical Care Medicine** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Mar. 12-13 **Pediatric Advanced Life Support (PALS)** St. Paul-Ramsey Medical Center; Capitol Professional Building, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Mar. 14-15 **Family Practice Today** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.

Mar. 15 **Minnesota Urological Society** Minnesota Urological Society; Hotel Sofitel, Bloomington, MN. CONTACT: Linda Reynolds, Executive Secretary, 6750 France Avenue South, Suite 149, Edina, MN 55435; 612/925-0533.

Mar. 23 **12th Annual Occupational Medicine Update** St. Paul-Ramsey Medical Center; Holiday Inn East, St. Paul, MN. CONTACT: Bonnie Young, 640 Jackson Street, St. Paul, MN 55101; 612/221-3992.



## Physician Opportunities and Miscellaneous Listings

*Classified rates are 50¢ a word. Minimum monthly charge is \$10; with box number \$2 additional. Ads will not be accepted by phone.*

- Placement of ads must be made six weeks prior to the date of publication (i.e., December 15 for February ad). Please send ad requests to *Minnesota Medicine*, 2221 University Avenue SE, Suite 400, Minneapolis, Minnesota 55414.
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**Twenty-nine Physician Multispecialty Clinic** located in desirable east-central Wisconsin location is seeking board-certified or board-qualified orthopedic surgeon to round out its services. Lab, X-ray, excellent hospital. Liberal guarantee and benefits. If interested, contact: D.F. Sweet, M.D., Fond du Lac Clinic, S.C., 80 Sheboygan Street, Fond du Lac, WI 54935. (R)

**Family Physician/Emergency Room:** Full-time salary working weekends, primarily emergency room. Flexibility available. Falls Medical Center, PA, 105 Shorewood Drive, International Falls, MN 56649. Please contact: A. Johnson, M.D., or A. Marc Gorden, M.D., at 218/283-9431 for more information. (R)

**Family Physician** wanted to join four physicians, one nurse practitioner, FP group practicing in two offices in Pine River and Pequot Lakes. Competitive salary. No ob. No HMOs. Rural area with outdoor recreational opportunities. Rotate call; adequate free time. Call or write: Gary G. Kohls, M.D., Pine and Lakes Clinics, PO Box 88, Pine River, MN 56474; 218/587-4416. (R)

**Physician: GP/FP/EM** seeks locations to cover on weekends as locum tenens. Board-certified. FP. Lic. Minn. Write: Box 35132, Minneapolis, MN 55436. (R)

**Family Physician:** Dynamic 14-physician, two PA, three-office, single-specialty practice in northwest Minneapolis suburbs seeking additional associate, BC/BE; ob available. Competitive salary, full benefits, reasonable call and hospital rounds schedule. Contact: Dr. Diane Shuck, 612/537-8405; or Mark Pottanger, 612/537-8475, Northwest Family Physicians. (\*R)

**Wausau Medical Center** is seeking BC/BE individuals in the following specialties: cardiology, dermatology, family practice, infectious disease, obstetrics/gynecology, pediatrics, and rheumatology. Modern clinic facility located across

the street from modern, 300-bed hospital. Full partnership in three years. Easy access to lakes, woods, and mountains. Write (including CV) to: D.K. Aughenbaugh, M.D., Medical Director, Wausau Medical Center, 2727 Plaza Drive, Wausau, WI 55401. (R)

**Johnson & Falls Search Associates** represents new practice opportunities locally and nationally. Working exclusively in the area of physician search, we are committed to expanding your professional options while meeting our clients' needs. There are no fees to candidates. For a thorough, confidential search, send CV or call: Liz Johnson or Pat Falls, Johnson & Falls Search Associates, 34 Forest Dale Road, Minneapolis, MN 55410; 612/922-0237. (R)

**Bemidji, Minnesota:** Excellent opportunities for well-trained physicians. We are seeking board-certified/board-eligible physicians in orthopedic surgery, family practice, ophthalmology, pediatrics, and otolaryngology to join a young 24-physician multispecialty group practice located in northern Minnesota. Competitive salary guarantee plus incentive first year and excellent benefits. An excellent opportunity for a physician to enjoy practice in the center of hunting, fishing, and clear air. Please respond with CV to: C.C. Lowery, Administrator, Bemidji Clinic-MeritCare, 1233 34th Street NW, Bemidji, MN 56601; 218/751-1280. (R)

**Outstanding Opportunity for a BC/BE Family Physician** to join a progressive medical community with eight physicians oriented to family practice. Details will be given by contacting: Dr. Tim Schmitt, Wadena Medical Center, 218/631-1360, or Jim Lawson, Administrator, Tri-County Hospital, Wadena, MN 56482; 218/631-3510. (R)

**Locum Tenens** physicians needed. Physicians and locations coordinating services. Write to: Margaret Carse, MED Professional Resource Search, PO Box 35215, Minneapolis, MN 55435. (10/89-R)

**St. Cloud**—Minnesota's fastest growing city—family practice physician, two pediatricians, two ob/gyns, BC/BE to join supportive primary care staff in a growing, successful, and innovative prepaid practice. New clinic facility. Full range of fringe benefits (competitive salary, liberal vacation, two weeks' education leave, retirement fund, etc.). Contact: Physician Services, Central Minnesota Group Health Plan, 1245 15th Street North, St. Cloud, MN 56303; 612/253-5220. An equal opportunity employer. (R)

**Family Practice:** Physicians seeking a BC/BE family practice physician for the Norway, Michigan, service area. The physician would have the option of joining one of the existing practices and/or setting up his/her own practice. Anderson Memorial Hospital is a part of Dickinson County

Hospitals and has a service-area population of over 45,000. Contact: Dr. Paul Hayes, Anderson Memorial Hospital, Main Street, Norway, MI 49870; 906/563-9243, or office 906/563-9255. 2-1/91

**Radiologist:** A three-physician radiology group is seeking a fourth radiologist with experience and interest in interventional radiology. Dickinson County Hospitals is a progressive, 126-bed, two-hospital system located in Iron Mountain, Michigan's Upper Peninsula. We have a service-area population of over 45,000. Contact and/or send résumé to: Drs. Specht/Shampo/Manzano, Radiology Department, Dickinson County Hospitals, 400 Woodward Avenue, Iron Mountain, MI 49801; 906/779-4565. 2-1/91

**Mankato:** FP partner to join four board-certified family physicians, ages 31-41, in fast-growing, full-range practice, includes ob. Population 40,000+. 70 miles to Twin Cities. Four colleges nearby. 90+ physicians on hospital staff. Academic appointment available. Call: Tony Giefer, M.D.; 507/387-8231. (1/90-R)

**Family Physicians:** Well-established south suburban Minneapolis family practice group seeks associates part/full time to staff day clinic. Excellent call schedule, salary, and fringe benefits. Also seeking locum tenens to staff PT/FT Urgent Care Centers and/or day clinic. Contact: Administration, Family Physicians, P.A., 612/435-4125, or send inquiries to Suite 100, 14050 Nicollet Avenue South, Burnsville, MN 55337. (\*9/89-R)

**Urgent Care/Primary Care** physicians for over 90 group positions in metropolitan Phoenix/Tucson, Arizona. Excellent compensation/partnership opportunities. Other quality positions nationwide. Send CV or call: Mitch Young (MM), PO Box 1804, Scottsdale, AZ 85252; 602/990-8080. (\*1/90-R)

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**BC/BE Family Practice and Internal Medicine Physician:** Excellent opportunity to join well-established, progressive 20-physician multispecialty group located in an economically sound community of 20,000 (drawing area of 30,000), 65 miles south of the Twin Cities. Full membership after one year. Competitive salary and fringe benefits package. Contact: Ed Durst, M.D., or Terry Tone, Administrator, 134 Southview, Owatonna, MN 55060; 507/451-1120. (2/90-R)

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**Forest Lake Doctor's Clinic** is seeking a BC/BE family physician, pediatrician, ob/gyn, and internist to join 10-physician multispecialty group. Located 25 miles north of Minneapolis-St. Paul in progressive community with excellent schools, many beautiful lakes, recreational activities, golf, fishing, boating, skiing. Local hospital directly across street. Contact: Dr. Harvey J. Frank or Dr. Doug Sill, 121 SE 11th Avenue, Forest Lake, MN 55025; 612/464-7100. (4/90-R)

**Internist** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809. (\*3/90-R)

**Family Practitioner** to join a progressive 13-physician group practice. Rural college town 30 miles from St. Paul, Minnesota, with community hospital. Contact: Robert B. Johnson, M.D., River Falls, WI 54022; 715/425-6701 or 612/436-8809. (\*3/90-R)

**Family Practice, Internal Medicine, Pediatrics, Urology, Obstetrics and Gynecology, Dermatology, and Orthopedics** practice opportunities available at the Faribault Clinic. The Faribault Clinic is a multispecialty group practice of 14 physicians. Faribault is located 50 miles south of Minneapolis on I-35. For more information contact: Ray W. Wood, M.D., or Ken Smith, Administrator, 924 NE 1st Street, Faribault, MN 55021; 507/334-3921. (4/90-R)



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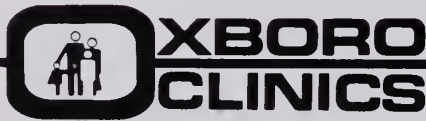
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**Family Physician:** Tired of call? Want predictable hours? Full-time physician needed to work three days per week in our outpatient family practice clinics. Salary plus bonus and benefits including malpractice insurance. Contact: Todd Patton, M.D., or William Wenmark, CEO, c/o NOW Care Medical Centers, 13031 Ridgedale Drive, Minneapolis, MN 55343; 612/593-9010. (5/90-R)

**Sanibel Island for Rent:** 2 BR condo, by day or week, on beautiful Sanibel Island, Florida. Home of famous wildlife refuge. Swim, shell, or just relax. Extensive bike paths, two Island golf courses. \$445 per week through 12/15/90, then \$775 per week through season. Call Toni, 612/869-1404. 7-12/90

**Downtown Office Space for Rent:** Physician in the Medical Arts Building, 825, wishes to sublet to another physician on a part-time basis for the purpose of sharing overhead expenses. Call: 612/370-0553. (6/90-R)

**Mankato Clinic, Ltd.** is seeking BC/BE physicians in the following specialties: dermatology, invasive cardiology, ob/gyn, oncology/hematology, pulmonary medicine, vascular surgery, family practice, pediatrics, and general internal medicine. The Mankato Clinic is a 43-doctor multispecialty group practice in south-central Minnesota with a trade area population of +200,000. Guaranteed salary first year, incentive thereafter with full range of benefits and liberal time off. For more information call: Roger Greenwald, Admin-

istrator, or Dr. B.C. McGregor, 507/625-1811, or write: 501 Holly Lane, Mankato, MN 56001. (6/90-R)

**Family Physician for Southwest Suburban Minneapolis:** BC/BE to join rapidly growing practice in Chaska, a rapidly expanding suburban Minneapolis community. Competitive salary, full benefits. Hospitals in Shakopee and Waconia. Provider for many health plans. Be prepared to be busy with the full spectrum of family practice. Contact: David Willey, M.D., or Betty Kuelbs, R.N., Valley Family Practice, 822 Yellow Brick Road, Chaska, MN 55318; 612/448-3303. 6-12/90

**Michigan—Ann Arbor Suburb:** Primary care specialists needed. Group-managed practice. Call one in three. First-year income guarantee, benefits, and paid malpractice. Call: Wanda Parker, Senior Associate, E.G. Todd Associates, 535 Fifth Avenue, Suite 1100, New York, NY 10017. Toll free: 800/221-4762. Collect: 212/599-6200. \*6-12/90

**Wisconsin:** Third BC/BE obstetrician/gynecologist needed to join stable, progressive, primary-care-based HMO/group practice in university town of 60,000 near Minneapolis-St. Paul. Excellent quality of life and outstanding recreational area. Competitive salary and fringe benefits. Contact: Stuart R. Lancer, M.D., Medical Director, Group Health Cooperative, PO Box 3217, Eau Claire, WI 54702-3217; 715/836-8552. \*3-2/91

**Phoenix, Arizona:** BC/BE family physician needed for established medical group. Practice located in a desirable high-growth area. Excellent compensation and benefits package. Send CV to: Minnesota Medicine (843), 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414. 12-7/91

**Family Practice / North Shore Lake Superior:** BC/BE family physician to join busy practice in primary care clinic of four family physicians with consulting internist, ophthalmologist, general surgeon, and orthopedic surgeon. Advantages of living in a small town while being only 22 miles from Duluth metro area. Contact: Lee Cohen or Steve Bjorum, Administrator, Community Health Center, Inc., 4th Street at 11th Avenue, Two Harbors, MN 55616; 218/834-7207. EOE/AA. (8/90-R)

**Olmsted Medical Group** is currently seeking board certified/eligible physicians in the following specialties: general surgery, family practice, emergency medicine, pediatrics, and ob/gyn. Excellent opportunity for well-trained physicians to join a 50+ physician multispecialty group in an established, progressive practice. In addition to the recently expanded main office in Rochester, Minnesota, the group operates eight branch offices in southeastern Minnesota. Affiliate hospital recently underwent complete renovation and expansion. Competitive salary/benefits package includes malpractice insurance, flexible benefits plan, 401K and profit sharing, and relocation assistance. Send CV to: Olmsted Medical Group, Attn: Susan Schuett, 210 Ninth Street SE, Rochester, MN 55904. (8/90-R)

**Internist** (with or without subspecialty) needed to join three-person internal medicine practice. Send CV to: J.E. McCrery, M.D., 1527 Broadway, Alexandria, MN 56308.

5-12/90

**BC/BE Family Physician** to join a progressive multispecialty group of 12 physicians located in a community of 11,000 (drawing area of 70,000). Full ownership status after one year. Competitive salary and excellent fringe benefits package. Contact: Steve Duncan, Administrator, Fairmont Medical Clinic, PO Box 800, Fairmont, MN 56031-0800; 507/238-4263.

6-1/91

**Family Physician:** Part-time positions staffing convenience care medical center. Competitive hourly salary plus malpractice insurance. Call or write: Bob Kantor, M.D., Grove Square Convenience Care, 13800 83rd Way, Maple Grove, MN 55369; home: 612/591-0437, work: 612/420-4279.

14-9/91

**Lake City, Minnesota:** Family physician BC/BE needed to join three other FPs in progressive, growing practice on Lake Pepin/Mississippi River in southeastern Minnesota. Excellent first-year salary/benefits in a scenic community with multiple recreational opportunities. Contact: D.D. Pflaum, M.D., 303 South Washington, Lake City, MN; 612/345-3318.

(8/90-R)

**Family Practice—Minnesota:** Physician needed for employment or ownership of broad-based practice in rural community 45 minutes south of metro area. Existing shared call, tremendous earning history of retired physician, and fully equipped and staffed office. Near outstanding hospital with all specialties represented. Guaranteed compensation, full benefits, bonus. For this and other opportunities in the Upper Midwest, send CV: Mary Jo Cordes, MDsearch, PO Box 21507, St. Paul, MN 55121. Call collect 612/454-7291.

4-12/90

**Family Practice / Urology / Orthopedic Surgery:** Dakota Clinic, Ltd., Wahpeton, North Dakota, seeking BC/BE physicians. The Wahpeton Clinic (a new facility as of April 1990) is currently staffed by 14 physicians serving a six-county area in three states. Beautiful Minnesota lakes district within 30 miles. Excellent fringe benefits package. Please contact: Corrine Romereim, Division Manager, 275 South 11th Street, Wahpeton, ND 58075; 701/642-2000.

\*6-2/91

**Family Physician** to join medical staff of three family practitioners in well-established, growing clinic in central Minnesota along southern shore of beautiful Mille Lacs Lake. Excellent subspecialty support, progressive community hospital, diverse patient population. Guaranteed salary, excellent benefits. Call collect, 612/532-3154 or write Fred Haack, Mille Lacs Health System, 200 North Elm Street, Onamia, MN 56359.

6-2/91

**MDsearch** assists medical groups and hospitals in their recruiting efforts. For confidential information on opportu-

nities in the Upper Midwest, send CV and/or call collect: Mary Jo Cordes, MDsearch, PO Box 21507, St. Paul, MN 55121; 612/454-7291.

12-8/91

**Cannon Falls:** Lease or buy established medical clinic building; partially furnished, including X-ray. Adequate for two physicians. Excellent hospital in community. Call: Dr. Klefstad, 507/263-3545. Write: Box 98, Cannon Falls, MN 55009.

(9/90-R)

**Family Practice:** BC/BE family practitioner to join 21-person family practice department that is part of a 45-person multispecialty group located in the northern suburbs of Minneapolis. Practice opportunities available in rural and suburban locations. Highly competitive first-year guaranteed salary, production-based compensation, exceptional benefits package. Respond with CV to: Richard Bertie, M.D., 9055 Springbrook Drive, Coon Rapids, MN 55433; 612/780-9155.

\*1-12/90

**Internal Medicine:** Minneapolis, Minnesota suburban multispecialty group with seven internists is seeking internist with or without subspecialty interest. One-hospital practice, excellent salary and benefits program. Contact: Sim Gesundheit, M.D., 612/571-0457 or send CV to: Columbia Park Medical Group, 6200 Shingle Creek Parkway, Suite 480, Brooklyn Center, MN 55430.

3-12/90

**Minneapolis, Minnesota:** Suburban practice, just 10 min-

## Mankato Clinic, Ltd.

501 Holly Lane  
Mankato, MN 56001

42-doctor multispecialty group practice in south-central MN with trade area pop. of 150,000. Guaranteed salary 1st year. Incentive thereafter with full range of benefits. Liberal time off.

Seeking BE/BC physicians:

- Dermatology
- Pulmonology
- Obstetrics/  
Gynecology
- Oncology/Hematology
- Invasive Cardiology
- Family Practice
- Surgery-Vascular  
Fellowship

•General Internal Medicine

For more information call:

Roger Greenwald, Administrator or  
B.C. McGregor, M.D., President

(507) 625-1811



utes from downtown. Multispecialty group with 25 family practice physicians has an excellent opportunity available. Call is one in 25 weekdays and one in four weekends (one day), full day off during week, excellent compensation, and unparalleled benefits program. Call: Robert Hovda, M.D., 612/788-9601, or write: Columbia Park Medical Group, #480, 6200 Shingle Creek Parkway, Brooklyn Center, MN 55430. 3-12/90

**Practice For Sale in Beautiful Southwest Montana:** Fishing, camping, and boating at your doorstep. Family practice with terminations of pregnancy. Price: \$50,000, negotiable. Reply with CV to: Minnesota Medicine (845), 2221 University Avenue SE, Minneapolis, MN 55414. 3-12/90

**Eugene, Oregon—Family Practice:** 36-physician multispecialty group is seeking BC/BE family physician. Ob optional. Excellent schools. Abundant cultural and recreational opportunities. Near Cascade Mountains and coast. Home of University of Oregon. Please send CV to: Rob Daugherty, M.D., Oregon Medical Group, 2484 River Road, Eugene, OR 97404; or phone: 503/688-9140. 3-12/90

**Internal Medicine and Family Practice Physicians—BC/BE:** Exceptional opportunity to join our well-established, very busy multispecialty clinic located in Milwaukee. Attractive and well-equipped building including in-house laboratory, X-ray department, business department, etc. Excellent progressive hospitals, medical school, regional medical center.



**WORTHINGTON  
MEDICAL CENTER**  
PROFESSIONAL ASSOCIATION

The Worthington Medical Center is a 17 member multispecialty group practicing in Worthington, Minnesota. The clinic provides primary and secondary care for a large portion of Southwestern Minnesota and Northwestern Iowa. Practice opportunities exist for board certified/eligible physicians in the Worthington office.

*Family Practice  
Internal Medicine  
Pediatrics  
Psychiatry  
Orthopedic Surgery  
Obstetrics/Gynecology*

Liberal vacation and meeting time, standard benefits package, and above average salary leading to shareholder status in the corporation with minimum buy-in.

For more information contact:  
**John Sieve, Administrator**  
Worthington Medical Center, P.A.  
508 Tenth Street, P.O. Box 86  
Worthington, MN 56187  
Phone: 507-372-2921

The greater Milwaukee area offers superb family environment, diverse cultural and recreational options. This is a unique, outstanding professional and personal opportunity! Please send CV or contact: Jonathan Slomowitz, M.D., Mitchell Medical Center, 1672 South Ninth Street, Milwaukee, WI 53204; 414/383-4700. 3-12/90

**Office Space Available for Sublease:** Fully equipped and staffed. Medical building attached to Methodist Hospital. Call: Dalia, 612/927-4071. (10/90-R)

**Northwestern Wisconsin—Family Practice/Internal Medicine:** A group of three board-certified family practice physicians is seeking an additional physician to join their group. The clinic is staffed by 21 employees, including two physician assistants. This beautiful new clinic is attached to the hospital and has complete ancillary facilities. Please respond to: John Perushek, Administrator, Bloomer Community Memorial Hospital, 1501 Thompson Street, Bloomer, WI 54724; 715/568-2000. 2-12/90

**Experienced Psychiatrist** seeks full- or part-time work in Twin Cities area. Has Minnesota and Wisconsin licenses. Reply to: Minnesota Medicine (846), 2221 University Avenue SE, Suite 400, Minneapolis, MN 55414. 2-12/90

**General Surgeon:** Busy Twin Cities surgeon is seeking BC/BE surgeon to join him. Practice offers general, vascular, and some thoracic surgery. Call is shared every fourth night and weekend. Hospital practice is at one hospital just two miles from clinic. Department of Surgery is part of multispecialty group that offers competitive salary plus productivity incentive, excellent benefits, and opportunity to buy in practice within five years. For additional information, send CV to: F. Johnson, M.D., Columbia Park Medical Group, 6200 Shingle Creek Parkway, Suite 480, Brooklyn Center, MN 55430 (10 minutes from downtown Minneapolis). 3-1/91

**Minneapolis—BC/BE Family Practitioner** or other specialty with emergency room experience sought for the Urgent Care Department of a large multispecialty group in desirable Twin Cities location. Our medical clinic is a highly reputable, well-established clinic that has been in existence for over 39 years. Salary and benefits are highly competitive. Regular work week expectation without night call or hospital obligation. Send CV and letter of inquiry to: Patrick Moylan, Park Nicollet Medical Center, Minneapolis, MN 55416. \*3-1/90

**General Internist:** Marshfield Clinic, a growing, nationally recognized 350-physician comprehensive multispecialty group, seeks BC/BE general internists to join its 30-member section in Marshfield and regional centers in central and northern Wisconsin. Skilled colleagues, democratic governance, modern facilities, state-of-the-art equipment, postgraduate training programs, clinical research, diverse practice opportunities, competitive salaries/benefits, an expanding regional health care system, an extremely low physician turnover rate (3.4%), and an unwavering com-

mitment to quality patient care all contribute to a stimulating, satisfying, secure, professional environment. The unpolluted, tranquil rural location, outdoor recreation, low crime rate, and excellent school system present an ideal family environment. At present, we offer the qualified general internist a variety of locations and practice opportunities, including: 1) traditional general internal medicine practice; 2) scheduled practice in immediate care or emergency care; 3) focused practice in perioperative medical care, chemical dependency, geriatrics, or psychiatric unit medicine. Send CV to: David L. Draves, Director of Physician Recruitment, Marshfield Clinic, 1000 North Oaks Avenue, Marshfield, WI 54449. Or call: 1-800/826-2345, ext. 5376.

\* 3-1/91

**BC/BE Internist** to join multispecialty group (network of 21 clinics) and a 19-member department (five general internists and 14 subspecialists, including one infectious disease specialist). Clinic is physically attached to 206-bed hospital. Two state universities and private liberal arts college enhance the cultural life of the community (population is approximately 100,000), and, with Minnesota's lakes country just a half-hour drive away, outdoor activities abound. Competitive salary, excellent fringe benefits package, and malpractice paid. Contact: Dr. John Hicks, Director, Recruiting Division, 1702 South University Drive, Fargo, ND 58103; 701/280-3338 or 701/280-8520. \* 6-4/91

**Family Practice—Hospital-sponsored Clinic Opportunity:** Dynamic, growth-oriented hospital in beautiful north-central Wisconsin is seeking family physicians to respond to growing community demand. The administrative burdens of medical practice will be minimized in this hospital-managed clinic. The hospital has committed to an income and benefits package that is significantly higher than similar opportunities. Package includes base income, incentive bonus, malpractice, disability, signing bonus, and student loan reduction/forgiveness program. All relocation costs will be borne by the hospital. Please contact: Kari Wangsness, Associate, The Chancellor Group, Inc., France Place, Suite 920, 3601 Minnesota Drive, Bloomington, MN 55435; 612/835-5123. (12/90-R)

**Locum Tenens** or temporary work wanted by board certified FP and GS. Minnesota licensed. Contact: F. Schmidt, M.D., Box 150, Pennington Route, Blackduck, MN 56630.

1-12/90

**Ob/Gyn, Family Practice, Internal Medicine, Otolaryngologist, Orthopedic Surgery:** Opportunities available for BC/BE physicians to join independent, multispecialty group with 10 clinics in the Minneapolis/St. Paul metropolitan area. Fee-for-service and prepaid patients, highly competitive earnings, excellent benefits package. Reply: Nancy Borgstrom, Aspen Medical Group, 1020 Bandana Boulevard West, St. Paul, MN 55108; 612/641-7185. EEO.

1-12/90

**North-central Wisconsin:** Eight-physician MS group, affiliated with Wausau Hospital Center, seeks BC/BE family

## Rewarding Practice Opportunities

Large multispecialty group offers practice opportunities throughout its regional network in eastern North Dakota and the western Minnesota lakes country.

Each clinic enjoys considerable autonomy with the benefit of over 45 specialists practicing in a 400 bed tertiary and trauma center within minutes by air ambulance or lifelight helicopter.

The region offers abundant recreational, athletic, hunting, fishing and cultural opportunities year round.

The following specialties are seeking BC/BE physicians:

|                   |             |
|-------------------|-------------|
| ENT               | FAMILY      |
| INTERNAL MEDICINE | PRACTICE    |
| (Procedural)      | OB/GYN      |
| OPHTHALMOLOGY     | ORTHOPEDICS |
| PEDIATRICS        | GENERAL     |
| DIAGNOSTIC        | SURGERY     |
| RADIOLOGY         |             |

Guaranteed salary with excellent benefit package.

Bonus arrangements available at some locations.

Please contact Robert C. Montgomery, M.D., Chairman, Physician Recruitment, 737 Broadway, Fargo, ND 58123 or call 1-800-437-4010, ext. 2151



**Fargo Clinic**  
MeritCare

physician with an interest in doing ob to join four others, and another general internist for their busy group practice. Clinic adjacent to 60-bed acute-care hospital with 24-hour ER, newly remodeled ob unit, full diagnostics, and comprehensive specialty clinics. Modern, growing, rural community, within an hour of Wausau, Wisconsin, has diverse and thriving economy. Splendid outdoor recreation in nearby national forest. Call 1-800/272-2777 for more information.

1-12/90

**Faculty Positions, Department of Surgery:** The University of Iowa Department of Surgery invites applications for faculty positions of all ranks for M.D.s with special qualifications in: 1) all areas of general surgery and plastic surgery, 2) cardiothoracic surgery and 3) neurosurgery. Full- or part-time associate positions are available in the Emergency Treatment Center. Women and minorities are encouraged to apply. *Written only* inquiries and CV direct to: R. J. Corry, M.D., Professor and Head, Department of Surgery, The University of Iowa College of Medicine, Iowa City, IA 52242. Please specify specialty. We are an Equal Opportunity/Affirmative Action Employer.

\* 1-12/90

**Family Practice, Internal Medicine, Ob/Gyn, and General Surgery Practice Opportunities:** Rural lake country community is seeking the above practitioners to join an active 12-physician multispecialty group. Quality, comfortable living environment, multiple recreational activities, fine educational opportunities, and cultural activities abound.



Opportunity includes relaxed call, liberal salary, and exceptional benefits. Send CV or inquiries to: Attn: Joel Rotvold, Lake Region Clinic, PC, PO Box 1100, Devils Lake, ND 58301; or call collect at 701/662-2157 for further information. 1-12/90

**Internal Medicine:** BC/BE physician to join busy, well-established five-physician, general internal medicine practice in suburban Minneapolis. Guaranteed salary and benefits package with productivity incentive. If you are interested in quality medicine and practicing in a caring environment, send CV to Adeline Reiten, Clinic Manager, 6363 France Avenue South, Suite 100, Edina, MN 55435; or call 612/920-4146. 1-12/90

**Staff Psychiatrist:** Medium-sized medical center offers primary and extended care to a large area of west-central Wisconsin. Full range of psychiatric services include admissions (acute), geriatric, long-term care, outpatient, PTSD, and alcohol. Salary range \$85-\$97,000, depending on qualifications and board certification. Excellent benefits package includes malpractice protection, 30 days paid vacation, and annuity plan. Relocation expenses. 173-acre facility includes limited on-station housing and nine-hole golf course. City of 7,500 in a predominantly rural area that offers affordable real estate, good schools. Conveniently located on I-90/94 midway between Milwaukee and Minneapolis. Call or write: Eugene J. Traynor, M.D., Chief, Psychiatry Service (116A), VA Medical Center, Tomah, WI

54660; 608/372-1631. EO/AEE.

\*1-12/90

**Ski Vail, Beaver Creek, Colorado:** Beautiful two-bedroom, two-bath condo, 1,100 square feet. Located at the entrance of Beaver Creek. On bus route. Contact: Dr. Herald A. Trimmell, 414/567-8386. \*2-1/91

**15th Annual Winter Pediatric Seminar:** Thursday and Friday, February 7-8, 1991, Powdermill Inn, Bessemer, Michigan. For further information contact: Marshfield Clinic's Office of Medical Education, 1000 North Oak Avenue, Marshfield, WI 54449; or call 715/387-5207 or 1-800/782-8581, ext. 5207. 2-1/91

**Fifty-six-year-old, Board-certified, University-trained Psychiatrist** with 23 years' experience in teaching, administration, program development, and currently medical director of regional hospital's Department of Psychiatry in California wishes to relocate to Minneapolis/St. Paul area. Seeks full-time salaried position where he can draw on wide range of professional experience. Licensed in Minnesota. Please call James R. Whitten, M.D., F.A.P.A., 415/538-8943 or 415/831-0964. 2-1/91

**Family Medicine, Internal Medicine, ENT, Orthopedics:** Well-established, modern clinic facilities; young, progressive group of 35 doctors looking to add physicians. Beautiful lake community of 20,000 (service area of 55,000). Competitive salary guaranteed with incentive options first year,

## Central Plains Clinic, Ltd.



A 70-physician multi-specialty group is seeking BE/BC physicians in the following specialties: Internal Medicine, Neurology, Infectious Disease and Otolaryngology.

Central Plains Clinic is located in Sioux Falls, SD, a progressive regional tertiary care medical center, with a very favorable tax climate.

Guaranteed first year salary with incentive thereafter, along with full benefit package.

**CONTACT: Michael R. Ferrell, M.D.**  
CENTRAL PLAINS CLINIC, LTD.  
2727 South Kiwanis Avenue  
Sioux Falls, SD 57105  
(605) 331-3490

## CHISAGO HEALTH SERVICES

Our integrated, multispecialty, 18-member medical practice has positions available for BE/BC physicians in the areas of:

- Family Practice
- Obstetrics/Gynecology
- Internal Medicine
- Urgent Care

This is your opportunity to join a progressive, growing medical team located in a land of lakes only 35 minutes from Minneapolis and St. Paul.

Contact: **Scott Wordelman, President**  
Chisago Health Services  
11685 Lake Blvd., N.  
Chisago City, MN 55013



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## Primary Care positions are available in Minnesota

*in the Twin Cities for board-certified/  
board-eligible physicians.*

**OBSTETRICS/GYNECOLOGY  
FAMILY PRACTICE  
INTERNAL MEDICINE**

**For more information please contact:**

Jennifer J. Mitchell  
Fairview Physician & Clinic Services  
600 West 98th Street, Suite 390  
Bloomington, MN 55420  
612/885-6225  
800/842-6469



**Fairview**



*Hospital and Healthcare Services*

*An equal opportunity employer*

plus excellent benefits. Excellent call schedule. Contact: William Brouwer, Administrator, Albert Lea Regional Medical Group, 1602 Fountain, Albert Lea, MN 56007; 507/373-8251. 2-1/91

**Psychiatrist**—BC/BE to join our staff at the Veterans Affairs Medical Center, St. Cloud, Minnesota. U.S. citizen or noncitizen having permanent immigrant status, verified by Alien Registration Receipt Card (Form I-151) is required. Must be proficient in written and spoken English. Position offers: a competitive salary, basic 40-hour week with limited on-call responsibility, malpractice coverage, 30 days' paid vacation, and other excellent fringe benefits in a JCAHO-accredited, progressive 800-bed medical center, with adequate staffing including physician extenders. The city of St. Cloud and the surrounding area boast of the high quality of family living for its residents who enjoy clean air, a wide variety of four-season outdoor recreational opportunities, excellent hunting and fishing in the "Land of 10,000 Lakes," and outstanding educational facilities, which include two universities and an excellent college. Located 65 interstate miles northwest of the Twin Cities of Minneapolis/St. Paul, we are at the edge of the northern lake country. Financial assistance to defer cost of relocation. Equal Opportunity Employer. Write or call: Dr. William Jordan, Psychiatry Service, 612/252-1670, ext. 368, or LaBelle Ruehle, Personnel Service, 612/255-6301, Veterans Affairs Medical Center, 4801 8th Street North, St. Cloud, MN 56303. \*2-1/91

**Pediatrician:** Our growing pediatric practice calls for the addition of a third pediatrician. We are seeking a BC/BE physician interested in both primary and consultative pediatrics. Practice location offers the advantages of a suburban community and is located just 15 minutes from Minneapolis, Minnesota. Send CV or contact me for additional information: Marilyn Campbell, M.D., Department of Pediatrics, Fridley Plaza Clinic, 6341 University Avenue NE, Fridley, MN 55432. 612/571-0457. 3-2/91

**Lake Region Clinic, Brainerd, Minnesota:** Recruiting two family practice physicians to join six family practice physicians. Able to do the full scope of family practice including ob and ICU. Good cooperative working relationship with specialists in orthopedic surgery, urology, ENT, OBG, general surgery, internal medicine, ophthalmology, and psychiatry. Modern, well-equipped 160-bed hospital within two blocks. We offer first-year guarantee plus incentive, vacation time, CME study time, insurance, and more. Send CV or contact Darrel Mischke, Administrator, or David Boran, M.D., at 218/829-3568. 6-5/91

**Physicians—Come To Sunny Arizona:** Enjoy the dual benefit of Tucson's ideal climate and being a part of one of the most respected group practices in the Southwest. Our 50-physician multispecialty group practice has been in Tucson since 1974. We are providers for HMOs, and we are expanding our fee-for-service practice. We are seeking to expand in the specialties of internal medicine, ob/gyn, family practice, and pulmonary. Salaries and benefits are competitive. Send resume with salary requirements to: Neil West, M.D., GHMA Medical Centers, PO Box 40550, Tucson, AZ 85717. Principals only—no phone calls please. 2-1/91

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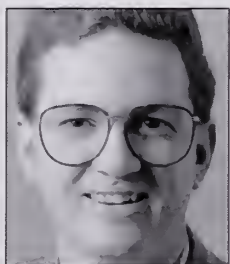


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